

# aeromet



MONTHLY PROGRESS REPORT NO. 11  
for the period January 1-31, 1977  
to  
ENVIRONMENTAL PROTECTION AGENCY  
REGION VIII

1860 Lincoln St., Suite 900  
Denver, CO 80203

Contract No. 68-01-1946

Utah U-a/U-b Tract

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## 1.0 INTRODUCTION

Low level temperature and wind data were collected for January, 1977 at Casper, Wyoming; near the Shell Oil Co. Colorado C-b Tract 25 miles west of Rio Blanco, Colorado; Craig, Colorado; Escalante and Hanksville Utah; Rock Springs, Wyoming; and the U-a/U-b Tract 5 miles south of Bonanza, Utah. The data collection was made using a 30 gm helium filled pilot balloon with a temperature sonde attached, a single theodolite and a TSR-2 receiver/recorder twice a day every other day. The observations were made  $\frac{1}{2}$  hour after sunrise and 1400L.

The pilot balloon had an ascent rate of 500 ft/min and it was tracked by a single theodolite for 12 minutes with the azimuth and elevation angles recorded every 30 seconds on a cassette tape recorder. The tape was transcribed to a pilot balloon form after the observation.

The temperature sonde operated at 403 MHz and the signal was received by a ground plane antenna at least 24 ft. AGL which was attached to the Aeromet, Inc. TSR-2 receiver/recorder. The TSR-2 receiver has a built-in Rustrak strip chart recorder and the temperature was recorded within the range from  $-50^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ . A baseline temperature calibration was performed with each T-Sonde by the adjustment of the recorded temperature to match the thermometer measured temperature next to the transmitting sonde. Once the calibration check was finished the balloon was released with the sonde attached and the temperature was recorded for at least 20 minutes. At the completion of each observation the data were mailed to Aeromet, Inc.

The Monthly Progress Report is divided into seven parts, one corresponding to each of the seven field sites. The collected temperature and wind data are accurate and have not been edited unless otherwise stated in the Pilot Balloon Summary Section. However, the obvious errors sometimes found in the recorded azimuth and elevation angles are corrected without mention. For example, the sequence of azimuth angles . . . 76.6, 75.3, 47.8, 73.8 . . . can be corrected without ambiguity. The more ambiguous errors are brought to the attention of the reader if editing has been performed, otherwise, the data are left as recorded and the filtering is left to the individual user. An example is the wind profile for Hanksville on 06/29/76 at 1300 MST found in the Monthly Progress Report No. 4. The azimuth angles starting 30 seconds after the launch and incremented by the same are as follows . . . 109.0, 110.0, 110.0, 281.0, 280.0, 282.0 . . . , while the corresponding elevation angles are as follows, . . . 60.0, 57.6, 58.7, 58.6, 52.7, 44.3 . . . . The wind speed and direction change dramatically over the interval as can be seen in the report since these data were not edited.



## 2.0 DATA SUMMARY

### 2.1 Utah U-a/U-b Tract Field Summary

No major problems existed at the site for the month of January. The observer continued to do an excellent job collecting the data.

The observer attempted 100% of the scheduled pilot balloon launches resulting in 100% recovery of the temperature data and 94% recovery of the wind data. Snow and rain prevented the collection of the additional 6% of wind data.



## 2.2 Mixing Layer Height

The average mixing layer height was computed for the morning and afternoon based on the morning and 1400L temperature soundings. The balloon release  $\frac{1}{2}$  hour after sunrise is near enough to the minimum temperature to assume the correctness of the calculated mixing layer heights. The afternoon balloon release is generally not at the time of maximum heating and the user of the mixing layer height data must be aware that minor changes in the calculated values can be expected. Without equipping the field sites with minimum/maximum thermometers the extrapolation of the afternoon data can not be justified in establishing a data base for statistical analysis. The approximation of the afternoon maximum temperature would be a "calculated guess" for there are: 1) local effects which are to be determined and would be filtered out with extrapolation, 2) mountain effects which alter the lower 1500m (e.g. downslope effects), and 3) meteorological effects which can alter the expected change in the sounding (e.g. advection, moisture, etc.).

It is felt that to better define the mixing layer height that a variety of "heat island" effects should be viewed. The rigorous method would be to define 15 "heat island" effects ranging from 0 to 14°C and let the user decide which would best serve his needs. However, for these analysis 0°, +5° and +10° "heat island" effects are calculated and listed for the morning and afternoon soundings in the table Average Mixing Layer Height.

The symbol N/D means that no mixing layer height was defined and sfc is the abbreviation for surface.

## 2.3 Stability and Inversion Classification

The temperature and wind data were edited to remove data felt to cause anomalous results in the stability and inversion classification schemes. Only the stations listed prior to the table classifying the inversions were used in the calculations.



### 3.0 DATA PROCESSING

#### 3.1 Printed and Plotted Output

Wind speeds and directions are computed from the azimuth and elevation angles measured while tracking the balloon with the theodolite. The wind speed and direction are plotted versus height and printed out at 30 second intervals. The printed output includes the AGL and MSL height of the calculated wind value and the orthogonal components of the wind. The wind profile is also punched on computer cards at 30 second intervals.

The temperature data are processed and plotted with the temperature and the lapse rate per 300 meters versus height at 15 second intervals. Tic marks are placed on the temperature plot at significant levels. A solid line to the right side of the plot indicates the data for that layer are interpolated temperature values. The temperature data are also printed out and punched on cards. The asterisk beside a height value indicates a significant level while a "?" indicates interpolated data.

The temperature data are also processed to produce for each site a monthly summary of inversion layers and lapse rates within the inversions and from the inversion base to the surface by means of the Holzworth classification scheme for inversions (Holzworth, G.C., 1974: "Climatological Data on Atmospheric Stability in the United States" Paper presented at the American Meteorological Society Symposium on Atmospheric Diffusion and Air Pollution, September 9-13, 1974. Santa Barbara, California.)

The temperature and wind data are processed together to produce for each site a monthly average bivariate frequency distribution of wind direction versus wind speed represented in the 500m layer adjacent to the ground. The distribution is presented by the six Pasquill stability classes (A-F) and a summary independent of stability. If the  $\Delta T/100m$  criterion is met but the wind speed criterion is not met, then the

| STABILITY<br>CLASS | $\Delta T$<br>(°C/100m) | WIND SPEED |
|--------------------|-------------------------|------------|
| A                  | <-1.9                   | $\leq 2$   |
| B                  | -1.9 - -1.7             | $\leq 5$   |
| C                  | -1.7 - -1.5             | $\leq 6$   |
| D                  | -1.5 - -0.5             | ALL SPEEDS |
| E                  | -0.5 - 1.5              | $\leq 5$   |
| F                  | >1.5                    | $\leq 3$   |

wind data are checked against the criterion for the next stability class, always cascading to the D stability class. Once the wind speed criterion is met the data are classified under the new stability class even though now the lapse rate exceeds the class criterion. For example,



if the  $\Delta T/100\text{m}$  value is 1.7 and the wind speed is 7 m/s, the lapse rate criterion is met for the stability class F, however the wind speed criterion is exceeded. The wind speed is greater than the 5 m/s maximum limit for class E but falls within the criterion of class D, which includes all wind speeds. As a result the observational data with a  $\Delta T$  value of 1.7°C/100 m and a wind speed value of 7 m/s are classified under stability class D, not class F.

The data are also punched on computer cards in a format compatible with the STAR PROGRAM of the National Climatic Center, NOAA, U.S. Department of Commerce.



### 3.2 Punched Output

The punched temperature and wind data for each observation are categorized into four groups, each separated by a blank card. The first group begins with a header card listing the station name (3A4), the station elevation in meters (I4), the month, date and year (I6), the observation time (I4), the time zone (A3), the balloon ascent rate in feet per minute (I3), the sampling interval in seconds (I2), the temperature error in °C (F5.1), the T-Sonde I.D. number (I5) and the surface wind speed in kts and direction (2F6.1). A surface wind speed of 180.0 KTS indicates missing surface wind data. The series of cards prior to the first blank card include on each card the elapse time in minutes (2X,F5.1), the height of the balloon in meters AGL (4X,F5.0), the height of the balloon in meters MSL (4X,F5.0), the temperature in °C (4X,F6.2), the change in temperature between standard or significant levels (2X,F6.2), the lapse rate per 300m (2X,F6.2), the difference in the lapse rate per 300m and the dry adiabatic lapse rate per 300m (2X,F6.2), the wind speed in m/s if known (4X,F5.1), and the wind direction if known (3X,F5.0). The cards following the first blank card include on each card the elapse time in minutes (2X,F5.1), the height in meters AGL (4X,F5.0), the height in meters MSL (4X,F5.0), the u-component of the wind in m/s (4X,F6.1), the v-component of the wind in m/s (6X,F6.1), the wind speed in m/s (7X,F5.1), the wind direction (6X,F5.0), the elevation angle in degrees (F5.1) and the azimuth angle in degrees (F5.1). The cards after the second blank card include a header card like before and a series of cards with four groups of the following on each card; the height in meters AGL (F6.1), the temperature in °C (F6.2), the lapse rate °C/300m (F6.2) and a blank space (1X). The cards after the third blank card include a header card the same as described earlier, eight cards with the original digitized temperature data and a flag to indicate interpolated data (20(F3.1,I1)), five cards with the elevation angle in degrees (16F5.1), and five cards with the azimuth angle in degrees (16F5.1). The temperature data are in degrees Celsius and have 50°C added to each value. An elevation angle of 180° indicates a missing azimuth and elevation angle value.

The punched output from the bivariate frequency distribution calculations include a header card as illustrated below,

| MONTH: | YEAR: | CASPER | SFC TO 500 METERS |
|--------|-------|--------|-------------------|
| MARCH  | 1976. |        |                   |
| 1      | 1     |        |                   |
| 101    | 101   |        |                   |

[illegible]



and the punched distribution data for each wind direction under each stability class in agreement with the "star" output. The stability classes are number coded as follows:

| STABILITY CLASS          | NUMBER CODE |
|--------------------------|-------------|
| A                        | 1           |
| B                        | 2           |
| C                        | 3           |
| D                        | 4           |
| E                        | 5           |
| F                        | 6           |
| Independent of Stability | 7           |

The station I.D. numbers are as follows:

| STATION               | I.D. NUMBER |
|-----------------------|-------------|
| Casper, Wyoming       | 1           |
| Colorado C-b Tract    | 2           |
| Craig, Colorado       | 3           |
| Escalante, Utah       | 4           |
| Hanksville, Utah      | 5           |
| Rock Springs, Wyoming | 6           |
| Utah U-a/U-b Tract    | 7           |

The month and season number codes are as follows:

|        |          |
|--------|----------|
| MONTH  | 1-12     |
| SEASON | 13 = DJF |
|        | 14 = MAM |
|        | 15 = JJA |
|        | 16 = SON |
| ANNUAL | 17       |



PILOT BALLOON SUMMARY  
Utah U-a/U-b Tract  
January, 1977

January 1 0737

1400 Temperature values were interpolated over the interval from  $\frac{1}{4}$  to 3 minutes.

January 3 0734 Balloon was lost in the clouds after 10 minutes.

1420 Temperature values were interpolated over the interval from  $4\frac{1}{2}$  to  $8\frac{1}{4}$  minutes.  
Balloon was lost in the clouds after  $7\frac{1}{2}$  minutes.

January 5 0740

1354

January 7 0741

1354

January 9 0735 Temperature values were interpolated over the interval from  $7\frac{1}{4}$  to 11 minutes. Balloon was lost in the clouds after 11 minutes.

1354 Temperature values were interpolated over the interval from  $10\frac{1}{4}$  to  $12\frac{3}{4}$  minutes.

January 11 0737

1407

January 13 0743 Temperature values were interpolated over the interval from  $1\frac{1}{2}$  to  $6\frac{3}{4}$  minutes.

1405

January 15 0738 Balloon was lost in the clouds after  $10\frac{1}{2}$  minutes.

1355



PILOT BALLOON SUMMARY  
Utah U-a/U-b Tract  
January, 1977

January 17 0735 Temperature values were interpolated over the interval from  $6\frac{1}{2}$  to  $12\frac{3}{4}$  minutes.

1350

January 19 0725

1353

January 21 0729

1350

January 23 0732 No wind observations taken due to snow and fog. Temperature values were interpolated over the interval from 6 to  $9\frac{3}{4}$  minutes.

1354 No wind observations taken due to rain and snow.

January 25 0727

1355 Temperature values were interpolated over the interval from  $6\frac{1}{2}$  to  $11\frac{1}{4}$  minutes

January 27 0726

1352

January 29 0724

1357

January 31 0715 Temperature values were interpolated over the interval from 1 to  $5\frac{1}{2}$  minutes.

1355



# AVERAGE MIXING LAYER HEIGHTS

Utah U-a/U-b Tract

January, 1977

## HEIGHT IN METERS

| DATE | MORNING |      |       | AFTERNOON |       |       |
|------|---------|------|-------|-----------|-------|-------|
|      | 0'      | +5'  | +10'  | 0'        | +5'   | +10'  |
| 1    | sfc     | 100m | 250m  | 100m      | 500m  | 3000m |
| 3    | sfc     | 500m | 1750m | 50m       | 2200m | N/D   |
| 5    | 75m     | 650m | 1150m | 900m      | 1400m | 2100m |
| 7    | sfc     | 200m | 300m  | 450m      | 900m  | 1650m |
| 9    | sfc     | 200m | 500m  | 700m      | 1500m | 2550m |
| 11   | sfc     | 75m  | 200m  | 200m      | 450m  | 550m  |
| 13   | 100m    | 300m | 700m  | sfc       | 200m  | 450m  |
| 15   | sfc     | 100m | 150m  | sfc       | 1200m | 3100m |
| 17   | sfc     | 100m | 150m  | 100m      | 800m  | 1200m |
| 19   | sfc     | 100m | 250m  | 50m       | 550m  | 1250m |
| 21   | sfc     | 200m | 400m  | 500m      | 850m  | 1600m |
| 23   | sfc     | 850m | 2750m | 100m      | 750m  | 1500m |
| 25   | sfc     | 150m | 450m  | 100m      | 750m  | 1850m |
| 27   | sfc     | 100m | 200m  | 450m      | 1400m | 2800m |
| 29   | sfc     | 100m | 200m  | 100m      | 900m  | 2900m |
| 31   | sfc     | 150m | 400m  | 300m      | 700m  | 1600m |



CLOUD COVER AND SIGNIFICANT WEATHER  
Utah U-a/U-b Tract  
January, 1977

| <u>DATE</u> | <u>MORNING</u>      | <u>AFTERNOON</u>     |
|-------------|---------------------|----------------------|
| 1           | overcast            | broken               |
| 3           | overcast            | overcast             |
| 5           | overcast            | overcast             |
| 7           | clear               | clear                |
| 9           | scattered           | clear                |
| 11          | clear               | clear                |
| 13          | broken              | scattered            |
| 15          | scattered           | clear                |
| 17          | scattered           | scattered            |
| 19          | scattered           | scattered            |
| 21          | broken              | overcast             |
| 23          | overcast, snow, fog | overcast, rain, snow |
| 25          | scattered           | clear                |
| 27          | clear               | clear                |
| 29          | broken              | clear                |
| 31          | broken              | scattered            |



\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3859  
DATE 01/01/77 TIME 07:37MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-----------------------|---------------------------|---------------------------------|
| 0.                     | 457.                  | 1.90                      | 0.0                             |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3861  
DATE 01/01/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-----------------------|---------------------------|---------------------------------|
| 114.                   | 610.                  | 0.09                      | -0.58                           |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3863  
DATE 01/03/77 TIME 07:34MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-----------------------|---------------------------|---------------------------------|
| 0.                     | 191.                  | 0.86                      | 0.0                             |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3858  
DATE 01/03/77 TIME 14:20MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-----------------------|---------------------------|---------------------------------|
| 0.                     | 38.                   | 0.24                      | 0.0                             |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3860  
DATE 01/05/77 TIME 07:40MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-----------------------|---------------------------|---------------------------------|
| 38.                    | 343.                  | 0.0                       | -1.29                           |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3862  
DATE 01/05/77 TIME 13:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-----------------------|---------------------------|---------------------------------|
| 288.                   | 327.                  | 1.55                      | -1.87                           |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3848  
DATE 01/07/77 TIME 07:41MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-----------------------|---------------------------|---------------------------------|
| 0.                     | 1334.                 | 0.76                      | 0.0                             |



\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3850

TE 01/07/77 TIME 13:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP.<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|------------------------|---------------------------|---------------------------------|
| 345.                   | 987.                   | 0.20                      | -1.26                           |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3853

TE 01/09/77 TIME 07:35MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP.<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|------------------------|---------------------------|---------------------------------|
| 0.                     | 533.                   | 1.06                      | 0.0                             |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3855

TE 01/09/77 TIME 13:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP.<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|------------------------|---------------------------|---------------------------------|
| 307.                   | 383.                   | 0.91                      | -1.53                           |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3849

TE 01/11/77 TIME 07:37MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

THERE ARE INSUFFICIENT DATA WITHIN 2000M OF THE SEC

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3851

TE 01/11/77 TIME 14:07MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP.<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|------------------------|---------------------------|---------------------------------|
| 125.                   | 1690.                  | 0.36                      | -2.19                           |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3852

TE 01/13/77 TIME 07:43MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP.<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|------------------------|---------------------------|---------------------------------|
| 110.                   | 720.                   | 0.59                      | -0.66                           |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3854

TE 01/13/77 TIME 14:05MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP.<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|------------------------|---------------------------|---------------------------------|
| 0.                     | 1029.                  | 0.92                      | 0.0                             |



\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3841  
DATE 01/15/77 TIME 07:38MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP..<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-------------------------|---------------------------|---------------------------------|
| 0.                     | 457.                    | 2.92                      | 0.0                             |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3843  
DATE 01/15/77 TIME 13:55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP..<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-------------------------|---------------------------|---------------------------------|
| 0.                     | 38.                     | 1.23                      | 0.0                             |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3845  
DATE 01/17/77 TIME 07:35MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP..<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-------------------------|---------------------------|---------------------------------|
| 0.                     | 495.                    | 2.23                      | 0.0                             |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3847  
DATE 01/17/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP..<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-------------------------|---------------------------|---------------------------------|
| 114.                   | 152.                    | 0.0                       | -0.65                           |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3840  
DATE 01/19/77 TIME 07:25MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP..<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-------------------------|---------------------------|---------------------------------|
| 0.                     | 762.                    | 1.61                      | 0.0                             |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3842  
DATE 01/19/77 TIME 13:53MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP..<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-------------------------|---------------------------|---------------------------------|
| 229.                   | 632.                    | 0.92                      | -0.49                           |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3844  
DATE 01/21/77 TIME 07:29MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP..<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-------------------------|---------------------------|---------------------------------|
| 0.                     | 953.                    | 0.71                      | 0.0                             |



\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3846  
TE 01/21/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.  
INV BASE INV TOP INV DT/DZ DT/DZ BELOW INV  
METERS AGL METERS AGL (DEG C)/100M (DEG C)/100M  
267. 914. 0.12 -1.69

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3974  
TE 01/23/77 TIME 07:32MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE INV TOP INV DT/DZ DT/DZ BELOW INV  
METERS AGL METERS AGL (DEG C)/100M (DEG C)/100M  
38. 76. 0.0 -0.24

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3977  
TE 01/23/77 TIME 13:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE INV TOP INV DT/DZ DT/DZ BELOW INV  
METERS AGL METERS AGL (DEG C)/100M (DEG C)/100M  
114. 191. 0.0 -0.83

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3980  
TE 01/25/77 TIME 07:27MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE INV TOP INV DT/DZ DT/DZ BELOW INV  
METERS AGL METERS AGL (DEG C)/100M (DEG C)/100M  
0. 724. 0.85 0.0

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3961  
TE 01/25/77 TIME 13:55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE INV TOP INV DT/DZ DT/DZ BELOW INV  
METERS AGL METERS AGL (DEG C)/100M (DEG C)/100M  
114. 191. 0.50 -0.58

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3964  
TE 01/27/77 TIME 07:26MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE INV TOP INV DT/DZ DT/DZ BELOW INV  
METERS AGL METERS AGL (DEG C)/100M (DEG C)/100M  
0. 305. 3.18 0.0

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3967  
TE 01/27/77 TIME 13:52MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE INV TOP INV DT/DZ DT/DZ BELOW INV  
METERS AGL METERS AGL (DEG C)/100M (DEG C)/100M  
1022. 1061. 0.0 -0.77



\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3971  
DATE 01/29/77 TIME 07:24MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP..<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-------------------------|---------------------------|---------------------------------|
| 0.                     | 1378.                   | 0.77                      | 0.0                             |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3962  
DATE 01/29/77 TIME 13:57MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP..<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-------------------------|---------------------------|---------------------------------|
| 114.                   | 152.                    | 0.0                       | -0.66                           |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3965  
DATE 01/31/77 TIME 07:15MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP..<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-------------------------|---------------------------|---------------------------------|
| 0.                     | 876.                    | 1.09                      | 0.0                             |

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3968  
DATE 01/31/77 TIME 13:55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| INV BASE<br>METERS AGL | INV TOP..<br>METERS AGL | INV DT/DZ<br>(DEG C)/100M | DT/DZ BELOW INV<br>(DEG C)/100M |
|------------------------|-------------------------|---------------------------|---------------------------------|
| 310.                   | 730.                    | 0.38                      | -1.12                           |







MONTH: JANUARY      YEAR: 1977      UTAH UAUB      SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

| DIRECTION | 0-3 | 4-6 | 7-10 | SPEED (METER/SEC)<br>11-16 | 17-21 | GREATER<br>THAN 21 | AVERAGE<br>SPEED | TOTAL |
|-----------|-----|-----|------|----------------------------|-------|--------------------|------------------|-------|
| NNE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| NNE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| ENE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| ENE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| ESE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| ESE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| SSE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| SSE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| SSW       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| SSW       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| WSW       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| WSW       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| NNW       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| NNW       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| AVG SPEED | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| TOTAL     | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |

RELATIVE FREQUENCY OF OCCURRENCE OF THE A STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 32 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA







MONTH: JANUARY      YEAR: 1977      UTAH UAUB      SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

| DIRECTION | 0-3 | 4-6 | 7-10 | SPEED (METER/SEC)<br>11-16 | 17-21 | GREATER<br>THAN 21 | AVERAGE<br>SPEED | TOTAL |
|-----------|-----|-----|------|----------------------------|-------|--------------------|------------------|-------|
| NNE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| NNE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| ENE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| ENE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| ESE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| ESE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| SSE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| SSE       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| SSW       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| SSW       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| WSW       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| WSW       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| NNW       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| NNW       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| NNW       | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| AVG SPEED | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |
| TOTAL     | 0.0 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0                | 0.0              | 0.0   |

RELATIVE FREQUENCY OF OCCURRENCE OF THE C      STABILITY CLASS IS      0.0

RELATIVE FREQUENCY OF CALM      0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 32 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



MONTH: JANUARY      YEAR: 1977      UTAH UAUR      SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

| DIRECTION | 0-3  | 4-6  | 7-10 | SPEED (METER/SEC)<br>11-16 | 17-21 | GREATER<br>THAN 21 | AVERAGE<br>SPEED | TOTAL |
|-----------|------|------|------|----------------------------|-------|--------------------|------------------|-------|
| N         | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 2.00             | 0.09  |
| NNE       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| NENE      | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| E         | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| ESE       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| SSE       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| S         | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 1.00             | 0.09  |
| SSW       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| WSW       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| WS        | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| WNW       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| NNW       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| AVG SPEED | 2.1  | 3.6  | 8.5  | 10.3                       | 0.0   | 0.0                |                  | 0.0   |
| TOTAL     | 0.55 | 0.27 | 0.09 | 0.09                       | 0.0   | 0.0                |                  | 1.00  |

RELATIVE FREQUENCY OF OCCURRENCE OF THE D STABILITY CLASS IS 0.37

RELATIVE FREQUENCY OF CALM 0.0

A. TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 32 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



MONTH: JANUARY      YEAR: 1977      UTAH UAUB      SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

| DIRECTION | 0-3  | 4-6  | 7-10 | SPEED (METER/SEC)<br>11-16 | 17-21 | GREATER<br>THAN 21 | AVERAGE<br>SPEED | TOTAL |
|-----------|------|------|------|----------------------------|-------|--------------------|------------------|-------|
| NNE       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| NNE       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| NNE       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| ESE       | 0.07 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.04             | 0.07  |
| ESE       | 0.07 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.07             | 0.07  |
| SSE       | 0.21 | 0.07 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.04             | 0.29  |
| SSE       | 0.21 | 0.14 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.09             | 0.29  |
| SSW       | 0.14 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.05             | 0.14  |
| SSW       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| SSW       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| WNW       | 0.07 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.07  |
| WNW       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| NNW       | 0.21 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.05             | 0.21  |
| AVG SPEED | 1.5  | 3.7  | 0.0  | 0.0                        | 0.0   | 0.0                |                  | 0.0   |
| TOTAL     | 0.79 | 0.21 | 0.0  | 0.0                        | 0.0   | 0.0                |                  | 1.00  |

RELATIVE FREQUENCY OF OCCURRENCE OF THE E STABILITY CLASS IS 0.47

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 32 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



MONTH: JANUARY      YEAR: 1977      UTAH UAUB      SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

| DIRECTION | 0-3  | 4-6 | 7-10 | SPEED (METER/SEC)<br>11-16 | 17-21 | GREATER THAN 21 | AVERAGE SPEED | TOTAL |
|-----------|------|-----|------|----------------------------|-------|-----------------|---------------|-------|
| NNE       | 0.0  | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0             | 0.0           | 0.0   |
| NNE       | 0.0  | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0             | 0.0           | 0.0   |
| NNE       | 0.0  | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0             | 0.0           | 0.0   |
| ESE       | 0.0  | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0             | 0.0           | 0.0   |
| ESE       | 0.0  | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0             | 0.0           | 0.0   |
| SSE       | 0.40 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0             | 0.7           | 0.40  |
| SSW       | 0.20 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0             | 1.3           | 0.20  |
| SSW       | 0.0  | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0             | 1.7           | 0.40  |
| WSW       | 0.0  | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0             | 0.0           | 0.0   |
| WNW       | 0.0  | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0             | 0.0           | 0.0   |
| NNW       | 0.0  | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0             | 0.0           | 0.0   |
| NNW       | 0.0  | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0             | 0.0           | 0.0   |
| AVG SPEED | 1.2  | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0             |               | 0.0   |
| TOTAL     | 1.00 | 0.0 | 0.0  | 0.0                        | 0.0   | 0.0             |               | 1.00  |

RELATIVE FREQUENCY OF OCCURRENCE OF THE F STABILITY CLASS IS 0.17

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 32 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



MONTH: JANUARY      YEAR: 1977      UTAH UAUR      SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

| DIRECTION | 0-3  | 4-6  | 7-10 | SPEED (METER/SEC)<br>11-16 | 17-21 | GREATER<br>THAN 21 | AVERAGE<br>SPEED | TOTAL |
|-----------|------|------|------|----------------------------|-------|--------------------|------------------|-------|
| NNE       | 0.04 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 2.00             | 0.03  |
| NNE       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| NNE       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.00             | 0.00  |
| ESE       | 0.03 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.04             | 0.03  |
| ESE       | 0.03 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.07             | 0.03  |
| SSE       | 0.03 | 0.03 | 0.00 | 0.03                       | 0.00  | 0.00               | 0.00             | 0.03  |
| SSW       | 0.03 | 0.07 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.04             | 0.17  |
| SSW       | 0.07 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.06             | 0.13  |
| WSW       | 0.00 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.09             | 0.00  |
| WNW       | 0.10 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.02             | 0.10  |
| WNW       | 0.10 | 0.03 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.02             | 0.10  |
| NNW       | 0.10 | 0.00 | 0.00 | 0.00                       | 0.00  | 0.00               | 0.09             | 0.13  |
| AVG SPEED | 1.6  | 3.6  | 8.5  | 10.3                       | 0.0   | 0.0                |                  | 0.0   |
| TOTAL     | 0.73 | 0.20 | 0.03 | 0.03                       | 0.0   | 0.0                |                  | 1.00  |

NORMALIZED FREQUENCY DISTRIBUTION INDEPENDENT OF STABILITY

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 32 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3859

DATE 01/01/77

TIME 07:37MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -9.67         |            | 0.0         |              | 1.3       | 180.      |
| 1.0         | 150               | 1735              | -4.79         | 4.88       | 10.36       | 13.28        | 0.6       | 178.      |
| 2.0         | 300               | 1885              | -1.00         | 3.80       | 2.47        | 5.40         | 5.2       | 167.      |
| 2.0         | * 304             | 1889              | -0.99         |            | 2.47        | 5.40         |           |           |
| 2.7         | 415.              | 2000.             | -0.99         | 0.00       | -0.57       | 2.36         | 8.5       | 180.      |
| 3.3         | 500               | 2085              | -1.27         | -0.28      | -1.33       | 1.60         | 8.7       | 186.      |
| 6.0         | 915.              | 2500.             | -4.38         | -3.01      | -1.92       | 1.01         | 7.5       | 211.      |
| 9.3         | 1415.             | 3000.             | -7.90         | -3.62      | -2.52       | 0.41         | 12.1      | 216.      |
| 15.8        | 2415.             | 4000.             | -14.44        | -6.54      | -1.38       | 1.55         |           |           |
| 22.2        | 3415.             | 5000.             | -21.68        | -7.25      | -2.59       | 0.34         |           |           |
| 28.6        | 4415.             | 6000.             | -30.05        | -8.37      | -1.41       | 1.51         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3859

DATE 01/01/77

TIME 07:37MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | -0.0          | 1.3           | 1.3               | 180.            |
| 0.5         | 76.               | 1661.             | -0.1          | 0.3           | 0.3               | 167.            |
| 1.0         | 152.              | 1737.             | -0.0          | 0.7           | 0.7               | 179.            |
| 1.5         | 229.              | 1814.             | 0.2           | 1.9           | 1.9               | 187.            |
| 2.0         | 305.              | 1890.             | -1.3          | 5.3           | 5.4               | 166.            |
| 2.5         | 381.              | 1966.             | -0.2          | 7.5           | 7.5               | 179.            |
| 3.0         | 457.              | 2042.             | 0.2           | 9.6           | 9.6               | 181.            |
| 3.5         | 533.              | 2118.             | 1.3           | 7.8           | 7.9               | 190.            |
| 4.0         | 610.              | 2195.             | 1.5           | 7.5           | 7.7               | 191.            |
| 4.5         | 686.              | 2271.             | 1.7           | 7.3           | 7.5               | 193.            |
| 5.0         | 763.              | 2348.             | 1.8           | 6.9           | 7.2               | 195.            |
| 5.5         | 839.              | 2424.             | 2.5           | 6.7           | 7.1               | 200.            |
| 6.0         | 915.              | 2500.             | 3.8           | 6.4           | 7.5               | 211.            |
| 6.5         | 991.              | 2576.             | 4.6           | 7.1           | 8.5               | 213.            |
| 7.0         | 1067.             | 2652.             | 4.6           | 7.5           | 8.8               | 212.            |
| 7.5         | 1144.             | 2729.             | 5.3           | 7.7           | 9.4               | 215.            |
| 8.0         | 1220.             | 2805.             | 5.9           | 8.0           | 9.9               | 216.            |
| 8.5         | 1296.             | 2881.             | 6.1           | 8.4           | 10.4              | 216.            |
| 9.0         | 1372.             | 2957.             | 6.8           | 9.4           | 11.6              | 216.            |
| 9.5         | 1448.             | 3033.             | 7.4           | 10.0          | 12.4              | 217.            |
| 10.0        | 1525.             | 3110.             | 8.8           | 10.3          | 13.5              | 221.            |
| 10.5        | 1602.             | 3187.             | 8.8           | 9.3           | 12.9              | 223.            |
| 11.0        | 1678.             | 3263.             | 9.3           | 10.8          | 14.3              | 221.            |
| 11.5        | 1754.             | 3339.             | 9.4           | 9.2           | 13.1              | 226.            |
| 12.0        | 1831.             | 3416.             | 9.6           | 9.7           | 13.6              | 225.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3861

DATE 01/01/77

TIME 14:00MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | 3.69          |            | 0.0         |              | 1.0       | 135.      |
| 1.0         | ? 150             | 1735              | 3.03          | -0.66      | -0.56       | 2.37         | 0.8       | 118.      |
| 2.0         | ? 300             | 1885              | 2.74          | -0.28      | -0.75       | 2.18         | 1.9       | 166.      |
| 2.7         | 415.              | ?2000.            | 2.46          | -0.29      | 1.31        | 4.24         | 4.9       | 221.      |
| 3.3         | 500               | 2085              | 3.19          | 0.73       | 2.06        | 4.99         | 7.4       | 223.      |
| 6.0         | 915.              | 2500.             | 1.02          | -1.77      | -3.01       | -0.09        | 10.2      | 226.      |
| 9.3         | 1415.             | 3000.             | -2.73         | -4.14      | 0.0         | 2.93         | 9.1       | 237.      |
| 14.8        | 2415.             | 4000.             | -10.66        | -7.94      | -2.14       | 0.78         |           |           |
| 21.0        | 3415.             | 5000.             | -15.34        | -4.68      | 1.58        | 4.51         |           |           |
| 27.3        | 4415.             | 6000.             | -22.70        | -7.35      | -3.00       | -0.07        |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3861

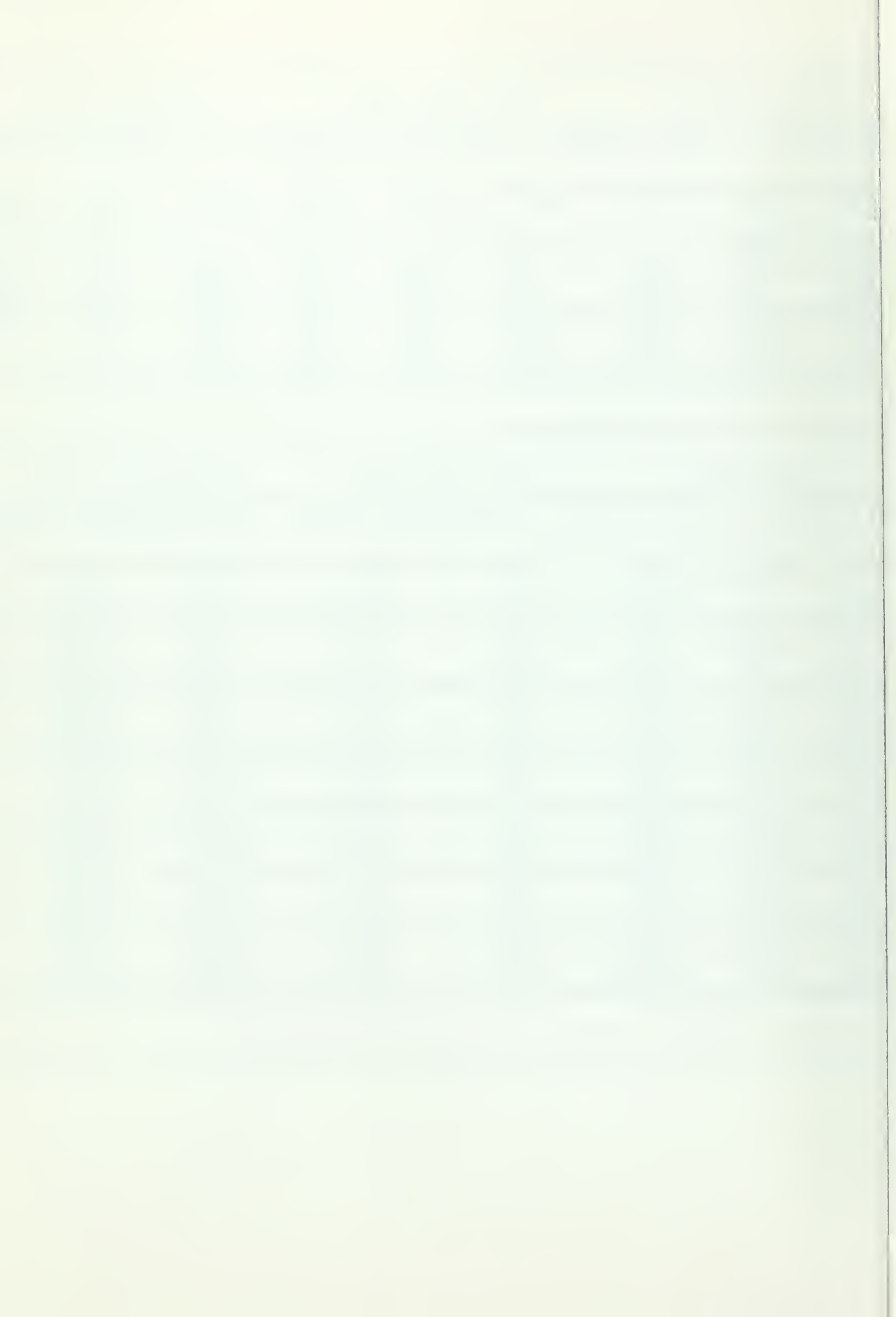
DATE 01/01/77

TIME 14:00MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | -0.7          | 0.7           | 1.0               | 135.            |
| 0.5         | 76.               | 1661.             | -0.0          | 0.2           | 0.2               | 173.            |
| 1.0         | 152.              | 1737.             | -0.7          | 0.3           | 0.8               | 116.            |
| 1.5         | 229.              | 1814.             | -1.7          | 1.0           | 2.0               | 122.            |
| 2.0         | 305.              | 1890.             | -0.4          | 1.9           | 1.9               | 169.            |
| 2.5         | 381.              | 1966.             | 2.2           | 2.8           | 3.5               | 219.            |
| 3.0         | 457.              | 2042.             | 4.4           | 4.8           | 6.5               | 223.            |
| 3.5         | 533.              | 2118.             | 5.7           | 5.9           | 8.2               | 224.            |
| 4.0         | 610.              | 2195.             | 6.1           | 6.1           | 8.7               | 225.            |
| 4.5         | 686.              | 2271.             | 6.3           | 6.2           | 8.8               | 225.            |
| 5.0         | 762.              | 2347.             | 6.9           | 6.3           | 9.4               | 228.            |
| 5.5         | 838.              | 2423.             | 7.3           | 6.9           | 10.0              | 226.            |
| 6.0         | 914.              | 2499.             | 7.3           | 7.2           | 10.2              | 226.            |
| 6.5         | 991.              | 2576.             | 7.3           | 7.3           | 10.4              | 225.            |
| 7.0         | 1067.             | 2652.             | 7.5           | 7.3           | 10.5              | 226.            |
| 7.5         | 1144.             | 2729.             | 8.2           | 6.8           | 10.7              | 230.            |
| 8.0         | 1221.             | 2806.             | 8.9           | 6.7           | 11.1              | 233.            |
| 8.5         | 1298.             | 2883.             | 9.5           | 7.4           | 12.0              | 232.            |
| 9.0         | 1375.             | 2960.             | 8.5           | 5.6           | 10.1              | 237.            |
| 9.5         | 1451.             | 3036.             | 6.9           | 4.4           | 8.1               | 238.            |
| 10.0        | 1527.             | 3112.             | 7.7           | 4.8           | 9.1               | 238.            |
| 10.5        | 1621.             | 3206.             | 11.0          | 6.7           | 12.9              | 238.            |
| 11.0        | 1743.             | 3328.             | 11.8          | 7.8           | 14.1              | 237.            |
| 11.5        | 1865.             | 3450.             | 14.4          | 8.7           | 16.8              | 239.            |
| 12.0        | 1950.             | 3535.             | 13.3          | 7.1           | 15.1              | 242.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3863

DATE 01/03/77

TIME 07:34MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -1.18         |            | 0.0         |              | 2.6       | 135.      |
| 1.0         | 150               | 1735              | 0.45          | 1.63       | 0.76        | 3.68         | 7.2       | 161.      |
| 1.0         | * 152             | 1737              | 0.45          |            | 0.76        | 3.68         |           |           |
| 2.0         | 300               | 1885              | -0.12         | -0.57      | -0.76       | 2.17         | 11.0      | 168.      |
| 2.7         | 415.              | 2000.             | -0.32         | -0.10      | -1.89       | 1.03         | 13.0      | 170.      |
| 3.3         | 500               | 2085              | -1.06         | -0.84      | -2.27       | 0.65         | 13.8      | 173.      |
| 6.0         | 915.              | 2500.             | -4.09         | -2.93      | -1.92       | 1.01         | 19.3      | 189.      |
| 9.3         | 1415.             | 3000.             | -7.12         | -3.12      | -1.93       | 1.00         | 14.7      | 212.      |
| 15.8        | 2415.             | 4000.             | -10.07        | -2.95      | -1.36       | 1.57         |           |           |
| 22.3        | 3415.             | 5000.             | -14.94        | -4.87      | -1.38       | 1.55         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3863

DATE 01/03/77

TIME 07:34MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | -1.8          | 1.8           | 2.6               | 135.            |
| 0.5         | 76.               | 1661.             | -2.7          | 5.5           | 6.2               | 154.            |
| 1.0         | 152.              | 1737.             | -2.3          | 6.9           | 7.2               | 161.            |
| 1.5         | 229.              | 1814.             | -2.6          | 9.7           | 10.0              | 165.            |
| 2.0         | 305.              | 1890.             | -2.2          | 10.8          | 11.1              | 168.            |
| 2.5         | 381.              | 1966.             | -2.3          | 12.3          | 12.5              | 169.            |
| 3.0         | 457.              | 2042.             | -1.9          | 13.4          | 13.6              | 172.            |
| 3.5         | 533.              | 2118.             | -1.6          | 13.8          | 13.9              | 173.            |
| 4.0         | 610.              | 2195.             | -1.3          | 16.2          | 16.2              | 176.            |
| 4.5         | 686.              | 2271.             | -0.4          | 15.7          | 15.8              | 179.            |
| 5.0         | 762.              | 2347.             | -0.0          | 17.1          | 17.1              | 180.            |
| 5.5         | 838.              | 2423.             | 1.3           | 18.8          | 18.8              | 184.            |
| 6.0         | 914.              | 2499.             | 3.1           | 19.1          | 19.3              | 189.            |
| 6.5         | 991.              | 2576.             | 4.1           | 18.7          | 19.1              | 192.            |
| 7.0         | 1067.             | 2652.             | 5.6           | 17.7          | 18.6              | 198.            |
| 7.5         | 1143.             | 2728.             | 6.7           | 18.2          | 19.4              | 200.            |
| 8.0         | 1219.             | 2804.             | 6.3           | 16.4          | 17.6              | 201.            |
| 8.5         | 1295.             | 2880.             | 7.4           | 14.0          | 15.9              | 208.            |
| 9.0         | 1372.             | 2957.             | 8.0           | 11.2          | 13.7              | 216.            |
| 9.5         | 1448.             | 3033.             | 7.5           | 13.5          | 15.5              | 209.            |
| 10.0        | 1524.             | 3109.             | 8.2           | 10.4          | 13.3              | 218.            |



UTAH UAQB

ELEV 1585 METERS

SOUNDING ID 3858

DATE 01/03/77

TIME 14:20MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | 5.96          |            | 0.0         |              | 5.1       | 180.      |
| 1.0         | 150               | 1735              | 5.49          | -0.47      | -1.48       | 1.44         | 10.5      | 181.      |
| 2.0         | 300               | 1885              | 4.64          | -0.84      | -1.67       | 1.25         | 10.6      | 187.      |
| 2.7         | 415.              | 2000.             | 3.50          | -0.85      | -3.93       | -1.00        | 4.3       | 209.      |
| 3.2         | 500.              | 2085.             | 2.86          | -0.94      | -5.44       | -2.51        | 2.6       | 218.      |
| 4.8         | 915.              | ?2500.            | -1.46         | -4.31      | -3.04       | -0.11        | 12.0      | 190.      |
| 7.7         | 1415.             | 3000.             | -6.04         | -4.58      | -2.89       | 0.04         | M         | M         |
| 14.2        | 2415.             | 4000.             | -11.65        | -5.62      | -0.78       | 2.15         |           |           |
| 20.7        | 3415.             | 5000.             | -18.96        | -7.30      | -2.38       | 0.55         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3858

DATE 01/03/77

TIME 14:20MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WND SPEED<br>M/S | WND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|------------------|----------------|
| 0.0         | 0.                | 1585.             | -0.0          | 5.1           | 5.1              | 180.           |
| 0.5         | 76.               | 1661.             | 0.7           | 9.7           | 9.8              | 184.           |
| 1.0         | 152.              | 1737.             | 0.1           | 10.5          | 10.5             | 181.           |
| 1.5         | 229.              | 1814.             | -0.6          | 16.3          | 16.3             | 178.           |
| 2.0         | 305.              | 1890.             | 1.3           | 10.1          | 10.2             | 187.           |
| 2.5         | 381.              | 1966.             | 0.8           | 5.9           | 5.9              | 188.           |
| 3.0         | 464.              | 2049.             | 1.7           | 1.0           | 2.0              | 240.           |
| 3.5         | 576.              | 2161.             | -0.5          | 3.8           | 3.8              | 172.           |
| 4.0         | 719.              | 2304.             | -2.1          | 10.8          | 11.0             | 169.           |
| 4.5         | 851.              | 2436.             | 1.2           | 10.3          | 10.3             | 187.           |
| 5.0         | 952.              | 2537.             | 2.8           | 12.7          | 13.0             | 193.           |
| 5.5         | 1034.             | 2619.             | 2.6           | 8.3           | 8.6              | 197.           |
| 6.0         | 1114.             | 2699.             | 2.3           | 10.0          | 10.3             | 193.           |
| 6.5         | 1203.             | 2788.             | 2.4           | 13.6          | 13.8             | 190.           |
| 7.0         | 1298.             | 2883.             | 1.3           | 14.6          | 14.6             | 185.           |
| 7.5         | 1383.             | 2968.             | -0.9          | 17.7          | 17.7             | 177.           |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3860

DATE 01/05/77

TIME 07:40MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -9.38         |            | 0.0         |              | 2.6       | 315.      |
| 1.0         | 150               | 1735              | -9.97         | -0.59      | 0.0         | 2.93         | 4.3       | 269.      |
| 2.0         | 300               | 1885              | -9.87         | 0.10       | -0.39       | 2.54         | 2.5       | 337.      |
| 2.7         | 415.              | 2000.             | -10.46        | -0.20      | -0.78       | 2.15         | 1.5       | 7.        |
| 3.3         | 500               | 2085.             | -10.46        | -0.40      | 0.39        | 3.32         | 2.1       | 8.        |
| 6.0         | 915.              | 2500.             | -10.37        | 0.10       | 0.39        | 3.32         | 7.2       | 52.       |
| 9.3         | 1415.             | 3000.             | -11.75        | -1.37      | -2.15       | 0.78         | 6.9       | 137.      |
| 15.8        | 2415.             | 4000.             | -15.24        | -3.50      | -0.98       | 1.94         |           |           |
| 22.2        | 3415.             | 5000.             | -19.66        | -4.42      | 3.18        | 6.11         |           |           |
| 28.8        | 4415.             | 6000.             | -25.44        | -5.78      | -2.01       | 0.92         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3860

DATE 01/05/77

TIME 07:40MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | 1.8           | -1.8          | 2.6               | 315.            |
| 0.5         | 76.               | 1661.             | 3.5           | 1.1           | 3.7               | 253.            |
| 1.0         | 152.              | 1737.             | 4.3           | 0.0           | 4.3               | 270.            |
| 1.5         | 229.              | 1814.             | 4.8           | -1.7          | 3.3               | 301.            |
| 2.0         | 305.              | 1890.             | 0.9           | -2.3          | 2.5               | 339.            |
| 2.5         | 381.              | 1966.             | -0.3          | -1.4          | 1.5               | 12.             |
| 3.0         | 457.              | 2042.             | -0.0          | -1.4          | 1.4               | 1.              |
| 3.5         | 533.              | 2118.             | -0.6          | -2.6          | 2.7               | 14.             |
| 4.0         | 610.              | 2195.             | -1.6          | -2.7          | 3.1               | 30.             |
| 4.5         | 686.              | 2271.             | -2.8          | -2.8          | 4.0               | 45.             |
| 5.0         | 762.              | 2347.             | -4.2          | -3.8          | 5.6               | 48.             |
| 5.5         | 838.              | 2423.             | -6.1          | -4.7          | 7.7               | 52.             |
| 6.0         | 914.              | 2499.             | -5.7          | -4.4          | 7.2               | 52.             |
| 6.5         | 991.              | 2576.             | -3.9          | -3.8          | 5.4               | 45.             |
| 7.0         | 1067.             | 2652.             | -2.9          | -4.1          | 5.0               | 35.             |
| 7.5         | 1143.             | 2728.             | -2.3          | -3.5          | 4.2               | 33.             |
| 8.0         | 1219.             | 2804.             | -2.2          | 0.6           | 2.3               | 105.            |
| 8.5         | 1295.             | 2880.             | -3.8          | 1.9           | 4.3               | 116.            |
| 9.0         | 1372.             | 2957.             | -4.6          | 4.0           | 6.1               | 131.            |
| 9.5         | 1448.             | 3033.             | -4.6          | 5.9           | 7.5               | 142.            |
| 10.0        | 1524.             | 3109.             | -5.1          | 7.1           | 8.7               | 144.            |
| 10.5        | 1600.             | 3185.             | -6.0          | 9.5           | 11.2              | 148.            |
| 11.0        | 1676.             | 3261.             | -5.4          | 9.1           | 10.6              | 150.            |
| 11.5        | 1753.             | 3338.             | -4.4          | 8.3           | 9.4               | 152.            |
| 12.0        | 1829.             | 3414.             | -3.7          | 7.8           | 8.6               | 154.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3862

DATE 01/05/77

TIME 13:54MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
| 0.7         | SFC               | 1735              | -4.28         |            | 0.0         |              | 1.0       | 315.      |
| 1.3         | 150               | 1885              | -8.13         | -3.85      | -2.32       | 0.60         | 2.6       | 235.      |
| 2.1         | 300               | 2000.             | -9.13         | -1.00      | -1.55       | 1.37         | 1.9       | 166.      |
| 2.6         | 415.              | 2085.             | -10.37        | -0.74      | -2.73       | 0.20         | 1.0       | 161.      |
| 5.3         | 500               | 2500.             | -10.27        | -0.40      | -3.12       | -0.19        | 1.2       | 160.      |
| 8.5         | 915.              | 3000.             | -13.14        | -2.87      | -1.37       | 1.56         | 2.5       | 56.       |
| 15.1        | 1415.             | 3000.             | -13.34        | -0.01      | -0.20       | 2.73         | 4.8       | 38.       |
|             | 2415.             | 4000.             | -17.24        | -4.09      | -2.77       | 0.16         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3862

DATE 01/05/77

TIME 13:54MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WND SPEED<br>M/S | WND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|------------------|----------------|
| 0.0         | 0.                | 1585.             | 0.7           | -0.7          | 1.0              | 315.           |
| 0.5         | 76.               | 1661.             | 1.8           | 0.9           | 2.0              | 243.           |
| 1.0         | 250.              | 1835.             | 2.5           | 0.5           | 3.5              | 225.           |
| 1.5         | 326.              | 1911.             | -0.8          | 0.8           | 1.1              | 134.           |
| 2.0         | 403.              | 1988.             | -0.3          | 0.9           | 1.0              | 161.           |
| 2.5         | 479.              | 2064.             | -0.4          | 1.3           | 1.3              | 163.           |
| 3.0         | 564.              | 2149.             | -0.4          | 0.7           | 0.8              | 152.           |
| 3.5         | 648.              | 2233.             | -1.1          | 1.7           | 2.0              | 148.           |
| 4.0         | 724.              | 2309.             | -1.3          | 1.6           | 2.1              | 140.           |
| 4.5         | 801.              | 2386.             | -1.7          | -0.1          | 1.7              | 88.            |
| 5.0         | 877.              | 2462.             | -1.7          | -1.2          | 2.1              | 55.            |
| 5.5         | 953.              | 2538.             | -2.4          | -1.5          | 2.9              | 57.            |
| 6.0         | 1029.             | 2614.             | -4.1          | -1.5          | 4.4              | 70.            |
| 6.5         | 1105.             | 2690.             | -3.5          | -1.8          | 4.0              | 63.            |
| 7.0         | 1182.             | 2767.             | -4.7          | -4.0          | 6.2              | 50.            |
| 7.5         | 1258.             | 2843.             | -5.2          | -4.6          | 7.0              | 48.            |
| 8.0         | 1334.             | 2919.             | -3.9          | -3.8          | 5.4              | 46.            |
| 8.5         | 1410.             | 2995.             | -3.1          | -3.7          | 4.8              | 39.            |
| 9.0         | 1486.             | 3071.             | -1.5          | -4.0          | 4.2              | 20.            |
| 9.5         | 1563.             | 3148.             | -2.2          | -3.4          | 4.0              | 34.            |
| 10.0        | 1639.             | 3224.             | -3.1          | -3.7          | 4.8              | 40.            |
| 10.5        | 1715.             | 3300.             | -3.7          | -2.7          | 4.6              | 54.            |
| 11.0        | 1791.             | 3376.             | -4.1          | -2.0          | 4.6              | 64.            |
| 11.5        | 1867.             | 3452.             | -5.2          | -2.8          | 5.9              | 61.            |
| 12.0        | 1944.             | 3529.             | -4.8          | -2.9          | 5.6              | 59.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3848

DATE 01/07/77

TIME 07:41MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -19.06        |            | 0.0         |              | 1.3       | 135.      |
| 1.0         | 150               | 1735              | -17.35        | 1.71       | 4.54        | 7.47         | 0.8       | 102.      |
| 2.0         | 300               | 1885              | -13.95        | 3.39       | 7.84        | 10.77        | 1.1       | 31.       |
| 2.7         | 415.              | 2000.             | -11.16        | 2.59       | 1.37        | 4.29         | 2.1       | 179.      |
| 3.3         | 500.              | 2085.             | -10.87        | 0.49       | 0.58        | 3.51         | 2.8       | 191.      |
| 3.5         | * 533             | 2118              | -10.86        |            | 0.58        | 3.51         |           |           |
| 6.0         | 915.              | 2500.             | -10.86        | 0.11       | -1.75       | 1.17         | 7.5       | 207.      |
| 8.0         | *1219             | 2804              | -12.15        |            | 3.90        | 6.83         |           |           |
| 8.8         | *1333             | 2918              | -8.98         |            | 1.75        | 4.68         |           |           |
| 9.3         | 1415.             | 3000.             | -9.48         | 1.28       | -0.19       | 2.73         | 10.3      | 243.      |
| 15.8        | 2415.             | 4000.             | -10.86        | -1.39      | -1.56       | 1.37         |           |           |
| 22.4        | 3415.             | 5000.             | -16.54        | -5.68      | -1.78       | 1.15         |           |           |
| 28.6        | 4415.             | 6000.             | -23.91        | -7.37      | -2.20       | 0.73         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3848

DATE 01/07/77

TIME 07:41MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | -0.9          | 0.9           | 1.3               | 135.            |
| 0.5         | 76.               | 1661.             | -0.3          | 0.2           | 0.4               | 127.            |
| 1.0         | 152.              | 1737.             | -0.8          | 0.2           | 0.8               | 101.            |
| 1.5         | 229.              | 1814.             | -0.8          | -1.0          | 1.3               | 40.             |
| 2.0         | 305.              | 1890.             | -0.5          | -0.9          | 1.1               | 31.             |
| 2.5         | 381.              | 1966.             | -0.6          | 1.6           | 1.7               | 160.            |
| 3.0         | 457.              | 2042.             | 1.0           | 2.3           | 2.5               | 203.            |
| 3.5         | 533.              | 2118.             | 0.1           | 3.1           | 3.1               | 182.            |
| 4.0         | 610.              | 2195.             | 0.1           | 6.1           | 6.1               | 181.            |
| 4.5         | 686.              | 2271.             | 1.3           | 8.7           | 8.8               | 188.            |
| 5.0         | 762.              | 2347.             | 2.5           | 8.6           | 9.0               | 196.            |
| 5.5         | 838.              | 2423.             | 3.6           | 7.4           | 8.2               | 206.            |
| 6.0         | 914.              | 2499.             | 3.4           | 6.7           | 7.5               | 207.            |
| 6.5         | 991.              | 2576.             | 3.6           | 6.5           | 7.5               | 209.            |
| 7.0         | 1067.             | 2652.             | 3.6           | 6.5           | 7.4               | 209.            |
| 7.5         | 1143.             | 2728.             | 3.4           | 4.9           | 5.9               | 215.            |
| 8.0         | 1219.             | 2804.             | 5.5           | 4.9           | 7.4               | 228.            |
| 8.5         | 1295.             | 2880.             | 6.6           | 4.7           | 8.1               | 234.            |
| 9.0         | 1372.             | 2957.             | 8.1           | 4.6           | 9.3               | 240.            |
| 9.5         | 1448.             | 3033.             | 10.0          | 4.6           | 11.0              | 245.            |
| 10.0        | 1524.             | 3109.             | 9.9           | 4.6           | 10.9              | 245.            |
| 10.5        | 1600.             | 3185.             | 10.0          | 3.9           | 10.7              | 249.            |
| 11.0        | 1676.             | 3261.             | 9.8           | 3.8           | 10.5              | 249.            |
| 11.5        | 1753.             | 3338.             | 10.7          | 2.6           | 11.0              | 256.            |
| 12.0        | 1829.             | 3414.             | 11.3          | 2.3           | 11.5              | 259.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3850

DATE 01/07/77

TIME 13:54MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -1.09         |            | 0.0         |              | 3.1       | 315.      |
| 0.8         | 150               | 1735              | -3.85         | -2.77      | -3.83       | -0.90        | 5.1       | 262.      |
| 1.5         | 300               | 1885              | -4.95         | -1.10      | -1.92       | 1.01         | 3.4       | 295.      |
| 2.2         | 415.              | 2000.             | -5.45         | -0.01      | -0.96       | 1.97         | 1.9       | 322.      |
| 2.8         | 500.              | 2085.             | -5.42         | -0.46      | -2.89       | 0.04         | 1.0       | 313.      |
| 4.5         | * 796             | 2381              | -7.90         |            | 2.70        | 5.63         |           |           |
| 5.3         | 915.              | 2500.             | -4.97         | 0.45       | 3.07        | 6.00         | 10.4      | 177.      |
| 5.8         | * 986             | 2571              | -4.19         |            | 0.77        | 3.70         |           |           |
| 8.6         | 1415.             | 3000.             | -7.70         | -2.63      | -0.39       | 2.54         | 9.8       | 229.      |
| 15.1        | 2415.             | 4000.             | -7.02         | 0.59       | -2.90       | 0.03         |           |           |
| 21.5        | 3415.             | 5000.             | -11.85        | -4.83      | -1.56       | 1.36         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3850

DATE 01/07/77

TIME 13:54MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | 2.2           | -2.2          | 3.1               | 315.            |
| 0.5         | 76.               | 1661.             | 3.6           | 1.0           | 3.8               | 254.            |
| 1.0         | 209.              | 1794.             | 6.1           | 0.1           | 6.1               | 269.            |
| 1.5         | 307.              | 1892.             | 2.9           | -1.4          | 3.2               | 297.            |
| 2.0         | 383.              | 1968.             | 1.7           | -1.9          | 2.5               | 318.            |
| 2.5         | 459.              | 2044.             | 0.6           | -0.9          | 1.1               | 326.            |
| 3.0         | 535.              | 2120.             | 0.8           | -0.5          | 0.9               | 301.            |
| 3.5         | 622.              | 2207.             | 0.6           | -0.8          | 1.0               | 323.            |
| 4.0         | 720.              | 2305.             | 0.3           | 0.5           | 0.6               | 215.            |
| 4.5         | 796.              | 2381.             | -0.5          | 6.7           | 6.7               | 175.            |
| 5.0         | 872.              | 2457.             | -0.9          | 9.7           | 9.7               | 175.            |
| 5.5         | 949.              | 2534.             | -0.2          | 11.0          | 11.0              | 179.            |
| 6.0         | 1025.             | 2610.             | -0.7          | 11.5          | 11.5              | 177.            |
| 6.5         | 1101.             | 2686.             | -0.5          | 11.2          | 11.3              | 177.            |
| 7.0         | 1177.             | 2762.             | 0.8           | 11.0          | 11.1              | 184.            |
| 7.5         | 1253.             | 2838.             | 2.2           | 10.1          | 10.3              | 193.            |
| 8.0         | 1331.             | 2916.             | 5.2           | 8.7           | 10.1              | 211.            |
| 8.5         | 1407.             | 2992.             | 7.2           | 6.5           | 9.7               | 228.            |
| 9.0         | 1483.             | 3068.             | 8.2           | 5.8           | 10.0              | 235.            |
| 9.5         | 1559.             | 3144.             | 8.9           | 5.2           | 10.3              | 240.            |
| 10.0        | 1636.             | 3221.             | 11.6          | 4.6           | 12.4              | 248.            |
| 10.5        | 1712.             | 3297.             | 13.3          | 5.0           | 14.2              | 249.            |
| 11.0        | 1788.             | 3373.             | 15.4          | 4.9           | 16.1              | 252.            |
| 11.5        | 1864.             | 3449.             | 16.0          | 3.4           | 16.4              | 258.            |
| 12.0        | 1940.             | 3525.             | 17.1          | 3.2           | 17.4              | 260.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3853

DATE 01/09/77

TIME 07:35MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -20.87        |            | 0.0         |              | 3.1       | 135.      |
| 1.0         | 150               | 1735              | -17.85        | 3.02       | 4.36        | 7.29         | 6.8       | 193.      |
| 2.0         | 300               | 1885              | -16.96        | 0.89       | 3.16        | 6.09         | 1.0       | 117.      |
| 2.7         | 415.              | 2000.             | -15.34        | 1.71       | 1.18        | 4.11         | 2.4       | 141.      |
| 3.3         | 500               | 2085.             | -15.25        | -0.00      | -0.98       | 1.94         | 2.6       | 116.      |
| 6.0         | 915.              | 2500.             | -16.84        | -1.39      | -1.78       | 1.15         | 2.7       | 313.      |
| 9.3         | 1415.             | 3000.             | -19.55        | -2.91      | -1.79       | 1.14         | 3.6       | 300.      |
| 15.7        | 2415.             | 4000.             | -24.83        | -5.28      | 1.80        | 4.73         |           |           |
| 16.0        | *2456             | 4041              | -24.83        |            | 3.20        | 6.13         |           |           |
| 18.0        | *2760             | 4345              | -21.28        |            | 1.40        | 4.32         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3853

DATE 01/09/77

TIME 07:35MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | -2.2          | 2.2           | 3.1               | 135.            |
| 0.5         | 76.               | 1661.             | -2.4          | 4.4           | 5.1               | 152.            |
| 1.0         | 152.              | 1737.             | 1.7           | 6.6           | 6.9               | 195.            |
| 1.5         | 229.              | 1814.             | 3.9           | 1.1           | 4.0               | 106.            |
| 2.0         | 305.              | 1890.             | 0.7           | 0.4           | 0.8               | 118.            |
| 2.5         | 381.              | 1966.             | -0.9          | 1.8           | 2.0               | 154.            |
| 3.0         | 457.              | 2042.             | -2.2          | 1.6           | 2.7               | 125.            |
| 3.5         | 533.              | 2118.             | -2.4          | 0.8           | 2.5               | 108.            |
| 4.0         | 610.              | 2195.             | -2.0          | 0.4           | 2.0               | 103.            |
| 4.5         | 686.              | 2271.             | -1.6          | 0.3           | 1.6               | 99.             |
| 5.0         | 762.              | 2347.             | -0.9          | 0.5           | 1.0               | 62.             |
| 5.5         | 838.              | 2423.             | -1.2          | 0.2           | 1.2               | 79.             |
| 6.0         | 914.              | 2499.             | -1.9          | 1.1           | 2.7               | 314.            |
| 6.5         | 991.              | 2576.             | -1.7          | 2.3           | 2.9               | 145.            |
| 7.0         | 1067.             | 2652.             | -0.8          | 3.0           | 3.1               | 165.            |
| 7.5         | 1143.             | 2728.             | 0.7           | 3.1           | 3.2               | 193.            |
| 8.0         | 1219.             | 2804.             | 2.5           | 3.0           | 3.3               | 229.            |
| 8.5         | 1295.             | 2880.             | 3.3           | 2.5           | 3.4               | 279.            |
| 9.0         | 1372.             | 2957.             | 3.2           | 2.4           | 3.5               | 294.            |
| 9.5         | 1448.             | 3033.             | 3.1           | 2.1           | 3.7               | 304.            |
| 10.0        | 1524.             | 3109.             | 3.2           | 2.6           | 4.8               | 318.            |
| 10.5        | 1600.             | 3185.             | 3.7           | 3.7           | 6.8               | 327.            |
| 11.0        | 1676.             | 3261.             | 4.4           | 8.1           | 9.2               | 331.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3855

DATE 01/09/77 TIME 13:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -4.97         |            | 0.0         |              | 3.6       | 315.      |
| 0.7         | 150               | 1735              | -7.78         | -2.81      | -3.87       | -0.94        | 3.3       | 313.      |
| 1.2         | 300               | 1885              | -9.66         | -1.88      | -1.75       | 1.18         | 4.6       | 332.      |
| 2.0         | 415.              | 2000.             | -9.77         | -0.10      | -1.36       | 1.57         | 3.1       | 336.      |
| 2.5         | 500               | 2085              | -10.32        | -0.56      | -4.29       | -1.36        | 2.3       | 6.        |
| 5.0         | 915.              | 2500.             | -12.35        | -1.53      | -2.94       | -0.01        | 3.7       | 221.      |
| 8.0         | 1415.             | 3000.             | -14.84        | -2.99      | 0.59        | 3.52         | 10.3      | 269.      |
| 14.5        | 2415.             | 4000.             | -18.97        | -4.12      | 0.60        | 3.52         |           |           |
| 16.8        | *2753             | 4338              | -19.16        |            | 4.75        | 7.68         |           |           |
| 17.8        | *2906             | 4491              | -14.94        |            | 2.37        | 5.30         |           |           |
| 21.1        | 3415.             | 5000.             | -17.95        | 1.02       | 1.39        | 4.31         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3855

DATE 01/09/77 TIME 13:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | 2.6           | -2.5          | 3.6               | 315.            |
| 0.5         | 76.               | 1661.             | 1.7           | -1.1          | 2.1               | 303.            |
| 1.0         | 258.              | 1843.             | 2.8           | -4.3          | 5.2               | 327.            |
| 1.5         | 345.              | 1930.             | 1.6           | -3.7          | 4.0               | 337.            |
| 2.0         | 421.              | 2006.             | 1.2           | -2.7          | 3.0               | 336.            |
| 2.5         | 497.              | 2082.             | -0.2          | -2.3          | 2.3               | 6.              |
| 3.0         | 592.              | 2177.             | -0.4          | -1.9          | 2.0               | 13.             |
| 3.5         | 685.              | 2270.             | 0.5           | -0.3          | 0.6               | 300.            |
| 4.0         | 761.              | 2346.             | 1.9           | -0.1          | 1.9               | 273.            |
| 4.5         | 837.              | 2422.             | 2.6           | 0.9           | 2.7               | 250.            |
| 5.0         | 913.              | 2498.             | 2.4           | 2.8           | 3.7               | 221.            |
| 5.5         | 990.              | 2575.             | 2.3           | 3.7           | 4.3               | 212.            |
| 6.0         | 1077.             | 2662.             | 2.6           | 4.1           | 4.8               | 212.            |
| 6.5         | 1175.             | 2760.             | 4.1           | 4.3           | 5.9               | 223.            |
| 7.0         | 1266.             | 2851.             | 6.7           | 2.4           | 7.1               | 251.            |
| 7.5         | 1342.             | 2927.             | 10.7          | 0.0           | 10.7              | 270.            |
| 8.0         | 1418.             | 3003.             | 10.3          | 0.2           | 10.3              | 269.            |
| 8.5         | 1494.             | 3079.             | 9.5           | 1.8           | 9.7               | 259.            |
| 9.0         | 1571.             | 3156.             | 8.9           | 3.6           | 9.6               | 248.            |
| 9.5         | 1647.             | 3232.             | 7.3           | 3.0           | 7.9               | 248.            |
| 10.0        | 1723.             | 3308.             | 6.4           | 2.1           | 7.5               | 252.            |
| 10.5        | 1799.             | 3384.             | 7.4           | 1.4           | 7.5               | 259.            |
| 11.0        | 1875.             | 3460.             | 8.9           | 1.0           | 8.9               | 264.            |
| 11.5        | 1952.             | 3537.             | 8.8           | -1.3          | 8.9               | 278.            |
| 12.0        | 2028.             | 3613.             | 9.2           | -3.1          | 9.7               | 289.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3849

DATE 01/11/77 TIME 07:37MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -21.79        |            | 0.0         |              | 1.0       | 90.       |
| 1.0         | 150               | 1735              | -16.74        | 5.04       | 8.46        | 11.39        | 1.0       | 108.      |
| 2.0         | 300               | 1885              | -11.66        | 5.09       | 4.10        | 7.03         | 1.2       | 151.      |
| 2.5         | * 380             | 1965              | -10.86        |            | 4.10        | 7.03         |           |           |
| 2.7         | 415.              | 2000.             |               |            |             |              | 0.5       | 202.      |
| 3.3         | 500               | 2085              |               |            |             |              | 1.1       | 241.      |
| 6.0         | 915.              | 2500.             |               |            |             |              | 2.4       | 207.      |
| 9.3         | 1415.             | 3000.             |               |            |             |              | 8.1       | 276.      |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3849

DATE 01/11/77 TIME 07:37MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | -1.0          | -0.0          | 1.0               | 90.             |
| 0.5         | 76.               | 1661.             | -0.6          | -0.3          | 0.7               | 61.             |
| 1.0         | 152.              | 1737.             | -0.9          | 0.3           | 1.0               | 110.            |
| 1.5         | 229.              | 1814.             | -0.8          | 2.4           | 2.5               | 162.            |
| 2.0         | 305.              | 1890.             | -0.6          | 1.0           | 1.1               | 150.            |
| 2.5         | 381.              | 1966.             | 0.0           | 0.1           | 0.1               | 180.            |
| 3.0         | 457.              | 2042.             | 0.8           | 0.7           | 1.0               | 230.            |
| 3.5         | 533.              | 2118.             | 1.1           | 0.4           | 1.1               | 249.            |
| 4.0         | 610.              | 2195.             | 2.1           | -0.6          | 2.2               | 286.            |
| 4.5         | 686.              | 2271.             | 1.3           | 0.5           | 1.4               | 249.            |
| 5.0         | 762.              | 2347.             | -0.1          | 2.3           | 2.3               | 178.            |
| 5.5         | 838.              | 2423.             | 1.0           | 1.9           | 2.1               | 208.            |
| 6.0         | 914.              | 2499.             | 1.1           | 2.2           | 2.4               | 207.            |
| 6.5         | 991.              | 2576.             | 0.7           | 2.7           | 2.8               | 194.            |
| 7.0         | 1067.             | 2652.             | 0.7           | 2.7           | 2.8               | 194.            |
| 7.5         | 1143.             | 2728.             | 0.6           | 3.2           | 3.2               | 191.            |
| 8.0         | 1219.             | 2804.             | 0.7           | 2.8           | 2.9               | 194.            |
| 8.5         | 1295.             | 2880.             | 3.7           | 0.7           | 3.8               | 260.            |
| 9.0         | 1372.             | 2957.             | 7.9           | -1.3          | 8.0               | 279.            |
| 9.5         | 1448.             | 3033.             | 8.1           | -0.6          | 8.1               | 274.            |
| 10.0        | 1524.             | 3109.             | 8.5           | 2.0           | 8.8               | 257.            |
| 10.5        | 1600.             | 3185.             | 7.7           | 1.6           | 7.8               | 258.            |
| 11.0        | 1676.             | 3261.             | 7.8           | -0.1          | 7.8               | 270.            |
| 11.5        | 1753.             | 3338.             | 7.2           | -1.0          | 7.2               | 278.            |
| 12.0        | 1829.             | 3414.             | 6.9           | -1.5          | 7.1               | 282.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3851

DATE 01/11/77

TIME 14:07MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -3.02         |            | 0.0         |              | 3.1       | 270.      |
| 0.9         | 150               | 1735              | -5.03         | -2.01      | 0.77        | 3.70         | 3.0       | 275.      |
| 1.9         | 300               | 1885              | -4.97         | 0.06       | -0.38       | 2.54         | 2.9       | 350.      |
| 2.5         | * 391             | 1976              | -4.97         |            | -5.73       | 8.66         |           |           |
| 2.7         | 415.              | 2000.             | -2.05         | 0.47       | 9.14        | 12.07        | 3.3       | 32.       |
| 3.2         | 500               | 2085              | -1.10         | 3.40       | 3.23        | 6.15         | 2.6       | 65.       |
| 3.8         | * 581             | 2166              | -0.13         |            | -1.70       | 4.63         |           |           |
| 5.9         | 915.              | 2500.             | -1.18         | -0.08      | -1.71       | 1.22         | 5.0       | 204.      |
| 8.3         | * 1308.           | 2893.             | -3.89         |            | 4.96        | 7.88         |           |           |
| 8.9         | 1415.             | 3000.             | -0.80         | 0.38       | 5.33        | 8.25         | 11.2      | 288.      |
| 9.0         | * 1423.           | 3008.             | -0.80         |            | 5.33        | 8.25         |           |           |
| 15.0        | 2415.             | 4000.             | -6.14         | -5.33      | -0.19       | 2.74         |           |           |
| 21.2        | 3415.             | 5000.             | -11.65        | -5.52      | -1.56       | 1.36         |           |           |
| 27.4        | 4415.             | 6000.             | -17.65        | -5.99      | -2.57       | 0.36         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3851

DATE 01/11/77

TIME 14:07MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | 3.1           | 0.0           | 3.1               | 270.            |
| 0.5         | 76.               | 1661.             | 2.6           | 1.1           | 3.8               | 246.            |
| 1.0         | 163.              | 1748.             | 3.0           | -0.5          | 3.0               | 280.            |
| 1.5         | 239.              | 1824.             | 2.0           | -2.4          | 3.1               | 321.            |
| 2.0         | 315.              | 1900.             | 0.1           | -2.9          | 3.9               | 358.            |
| 2.5         | 391.              | 1976.             | -1.1          | -3.1          | 3.3               | 320.            |
| 3.0         | 468.              | 2053.             | -2.7          | -1.7          | 3.2               | 58.             |
| 3.5         | 544.              | 2129.             | -1.8          | -0.5          | 1.8               | 75.             |
| 4.0         | 620.              | 2205.             | -1.9          | -1.2          | 2.2               | 59.             |
| 4.5         | 696.              | 2281.             | -3.2          | -1.6          | 3.6               | 63.             |
| 5.0         | 772.              | 2357.             | -3.0          | 3.3           | 4.5               | 138.            |
| 5.5         | 849.              | 2434.             | 1.2           | 4.3           | 4.4               | 196.            |
| 6.0         | 925.              | 2510.             | 2.1           | 4.6           | 5.1               | 205.            |
| 6.5         | 1006.             | 2591.             | 1.5           | 4.3           | 4.6               | 199.            |
| 7.0         | 1108.             | 2693.             | 3.0           | 3.6           | 4.7               | 220.            |
| 7.5         | 1195.             | 2780.             | 5.3           | 1.4           | 5.5               | 255.            |
| 8.0         | 1271.             | 2856.             | 7.9           | 1.8           | 8.1               | 257.            |
| 8.5         | 1347.             | 2932.             | 9.5           | 0.5           | 9.5               | 267.            |
| 9.0         | 1423.             | 3008.             | 10.7          | -4.0          | 11.4              | 291.            |
| 9.5         | 1499.             | 3084.             | 7.9           | 1.5           | 8.1               | 260.            |
| 10.0        | 1576.             | 3161.             | 7.6           | -0.4          | 7.6               | 273.            |
| 10.5        | 1652.             | 3237.             | 7.5           | 0.2           | 7.5               | 269.            |
| 11.0        | 1728.             | 3313.             | 7.0           | 0.1           | 7.0               | 269.            |
| 11.5        | 1804.             | 3389.             | 6.7           | 0.6           | 6.7               | 265.            |
| 12.0        | 1880.             | 3465.             | 6.7           | 0.2           | 6.7               | 269.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3852

DATE 01/13/77

TIME 07:43MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | 0.83          |            | 0.0         |              | 1.5       | 135.      |
| 1.0         | 150               | 1735              | 0.07          | -0.77      | 0.94        | 3.87         | 1.0       | 163.      |
| 1.0         | * 152             | 1737              | 0.07          |            | 0.94        | 3.87         |           |           |
| 2.0         | 300               | 1885              | 1.78          | 1.72       | 5.07        | 8.00         | 1.3       | 74.       |
| 2.7         | 415.              | 2000.             | 3.69          | 1.91       | -0.19       | 2.74         | 1.3       | 74.       |
| 3.3         | 500               | 2085              | 3.13          | -0.55      | -1.87       | 1.06         | 1.0       | 145.      |
| 6.0         | 915.              | 2500.             | 1.98          | -1.05      | -1.50       | 1.43         | 1.5       | 266.      |
| 9.3         | 1415.             | 3000.             | -0.32         | -2.40      | -2.27       | 0.66         | 10.1      | 269.      |
| 14.7        | 2415.             | 4000.             | -9.67         | -9.36      | -1.94       | 0.98         |           |           |
| 15.3        | *2500             | 4085              | -10.37        |            | 0.0         | 2.93         |           |           |
| 16.5        | *2690             | 4275              | -8.39         |            | 0.39        | 3.32         |           |           |
| 21.0        | 3415.             | 5000.             | -13.84        | -4.17      | -1.57       | 1.36         |           |           |
| 27.0        | 4415.             | 6000.             | -16.64        | -2.80      | -2.57       | 0.36         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3852

DATE 01/13/77

TIME 07:43MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | -1.1          | 1.1           | 1.5               | 135.            |
| 0.5         | 76.               | 1661.             | -0.4          | 1.1           | 1.2               | 162.            |
| 1.0         | 152.              | 1737.             | -0.3          | 1.0           | 1.0               | 163.            |
| 1.5         | 229.              | 1814.             | -0.8          | -0.6          | 1.0               | 54.             |
| 2.0         | 305.              | 1890.             | -1.3          | -0.3          | 1.3               | 76.             |
| 2.5         | 381.              | 1966.             | -1.3          | -1.0          | 1.6               | 51.             |
| 3.0         | 457.              | 2042.             | -1.0          | 0.2           | 1.0               | 103.            |
| 3.5         | 533.              | 2118.             | -0.0          | 0.9           | 0.9               | 177.            |
| 4.0         | 610.              | 2195.             | 2.4           | 2.2           | 3.2               | 227.            |
| 4.5         | 686.              | 2271.             | 2.4           | 1.5           | 3.9               | 235.            |
| 5.0         | 762.              | 2347.             | 3.0           | 0.2           | 3.0               | 266.            |
| 5.5         | 838.              | 2423.             | 3.0           | -1.2          | 3.2               | 293.            |
| 6.0         | 914.              | 2499.             | 1.5           | 0.1           | 1.5               | 266.            |
| 6.5         | 991.              | 2576.             | 2.1           | 1.8           | 2.8               | 229.            |
| 7.0         | 1067.             | 2652.             | 4.3           | 2.4           | 4.9               | 240.            |
| 7.5         | 1143.             | 2728.             | 5.9           | 2.2           | 6.4               | 249.            |
| 8.0         | 1219.             | 2804.             | 7.3           | 2.3           | 7.7               | 253.            |
| 8.5         | 1295.             | 2880.             | 7.6           | 2.7           | 8.1               | 251.            |
| 9.0         | 1372.             | 2957.             | 8.8           | 1.5           | 8.9               | 260.            |
| 9.5         | 1448.             | 3033.             | 11.0          | -1.1          | 11.1              | 276.            |
| 10.0        | 1527.             | 3112.             | 11.9          | -1.7          | 12.1              | 278.            |
| 10.5        | 1618.             | 3203.             | 14.0          | -3.0          | 14.3              | 282.            |
| 11.0        | 1710.             | 3295.             | 13.8          | -2.8          | 14.0              | 281.            |
| 11.5        | 1793.             | 3378.             | 13.6          | -2.6          | 13.8              | 281.            |
| 12.0        | 1895.             | 3480.             | 13.7          | -2.4          | 13.9              | 280.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3854

DATE 01/13/77

TIME 14:05MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -14.64        |            | 0.0         |              | 1.5       | 315.      |
| 1.0         | 150               | 1735              | -11.97        | 2.67       | 3.91        | 6.84         | 2.4       | 352.      |
| 2.0         | ? 300             | 1885              | -11.07        | 0.90       | 2.92        | 5.85         | 1.1       | 40.       |
| 2.7         | 415.              | ? 2000.           | -9.68         | 1.39       | 2.72        | 5.65         | 0.9       | 282.      |
| 3.3         | ? 500             | 2085              | -8.81         | 0.87       | 2.33        | 5.25         | 2.4       | 266.      |
| 6.0         | 915.              | ? 2500.           | -5.56         | 3.25       | 0.58        | 3.50         | 9.2       | 268.      |
| 6.8         | *1028             | 2613              | -5.16         |            | -0.19       | 2.74         |           |           |
| 9.3         | 1415.             | 3000.             | -7.41         | -1.85      | -1.55       | 1.38         | 11.3      | 259.      |
| 15.8        | 2415.             | 4000.             | -15.24        | -7.83      | -2.36       | 0.56         |           |           |
| 20.5        | *3204             | 4789              | -22.39        |            | 4.38        | 7.31         |           |           |
| 21.9        | 3415.             | 5000.             | -16.74        | -1.51      | 3.55        | 6.48         |           |           |
| 28.3        | 4415.             | 6000.             | -17.64        | -0.90      | -2.57       | 0.36         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3854

DATE 01/13/77

TIME 14:05MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | 1.1           | -1.1          | 1.5               | 315.            |
| 0.5         | 76.               | 1661.             | 1.3           | -0.3          | 1.3               | 259.            |
| 1.0         | 152.              | 1737.             | 0.2           | -2.4          | 2.4               | 355.            |
| 1.5         | 229.              | 1814.             | -1.7          | -1.8          | 2.5               | 44.             |
| 2.0         | 305.              | 1890.             | -0.6          | -0.8          | 1.0               | 39.             |
| 2.5         | 381.              | 1966.             | 0.6           | -0.3          | 0.7               | 299.            |
| 3.0         | 457.              | 2042.             | 1.1           | 0.2           | 1.2               | 261.            |
| 3.5         | 533.              | 2118.             | 3.3           | 0.1           | 3.3               | 269.            |
| 4.0         | 610.              | 2195.             | 5.9           | 0.6           | 5.9               | 264.            |
| 4.5         | 686.              | 2271.             | 6.3           | 1.0           | 6.4               | 261.            |
| 5.0         | 762.              | 2347.             | 7.0           | 0.8           | 7.1               | 263.            |
| 5.5         | 838.              | 2423.             | 8.0           | 0.5           | 8.0               | 267.            |
| 6.0         | 914.              | 2499.             | 9.2           | 0.3           | 9.2               | 268.            |
| 6.5         | 991.              | 2576.             | 9.7           | 0.6           | 9.7               | 267.            |
| 7.0         | 1067.             | 2652.             | 10.4          | 1.2           | 10.4              | 264.            |
| 7.5         | 1143.             | 2728.             | 10.7          | 1.3           | 10.8              | 263.            |
| 8.0         | 1219.             | 2804.             | 10.5          | 1.8           | 10.6              | 260.            |
| 8.5         | 1295.             | 2880.             | 10.6          | 2.0           | 10.8              | 259.            |
| 9.0         | 1372.             | 2957.             | 10.5          | 2.2           | 10.7              | 258.            |
| 9.5         | 1448.             | 3033.             | 11.5          | 2.0           | 11.7              | 260.            |
| 10.0        | 1524.             | 3109.             | 10.8          | 2.2           | 11.0              | 258.            |
| 10.5        | 1600.             | 3185.             | 11.6          | 2.5           | 11.9              | 258.            |
| 11.0        | 1676.             | 3261.             | 11.7          | 2.5           | 12.0              | 258.            |
| 11.5        | 1753.             | 3338.             | 9.9           | 2.8           | 10.3              | 254.            |
| 12.0        | 1829.             | 3414.             | 10.3          | 3.1           | 10.8              | 253.            |



UTAH UAQB

ELEV 1585 METERS

SOUNDING ID 3841

DATE 01/15/77

TIME 07:38MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -14.64        |            | 0.0         |              | 1.0       | 135.      |
| 1.0         | 150               | 1735              | -6.67         | 7.97       | 13.52       | 16.45        | 2.2       | 184.      |
| 2.0         | 300               | 1885              | -2.54         | 4.13       | 4.77        | 7.69         | 5.0       | 174.      |
| 2.7         | 415.              | 2000.             | -1.28         | 1.26       | -0.38       | 2.55         | 3.6       | 211.      |
| 3.3         | 500.              | 2085.             | -1.75         | -0.47      | -1.71       | 1.22         | 3.7       | 217.      |
| 6.0         | 915.              | 2500.             | -4.38         | -2.63      | -1.91       | 1.01         | 9.6       | 258.      |
| 7.0         | *1067             | 2652              | -4.87         |            | -2.49       | 5.42         |           |           |
| 8.0         | *1219             | 2804              | -1.57         |            | 3.43        | 6.36         |           |           |
| 9.3         | 1415.             | 3000.             | -2.25         | 2.14       | -3.05       | -0.12        | 4.7       | 284.      |
| 14.5        | 2415.             | 4000.             | -12.34        | -10.10     | -3.72       | -0.79        |           |           |
| 19.3        | 3415.             | 5000.             | -22.88        | -10.54     | -5.59       | -2.66        |           |           |

UTAH UAQB

ELEV 1585 METERS

SOUNDING ID 3841

DATE 01/15/77

TIME 07:38MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | -0.7          | 0.7           | 1.0               | 135.            |
| 0.5         | 76.               | 1661.             | -0.0          | 0.0           | 0.0               | 176.            |
| 1.0         | 152.              | 1737.             | -0.2          | 2.2           | 2.2               | 184.            |
| 1.5         | 229.              | 1814.             | 0.1           | 4.0           | 4.0               | 181.            |
| 2.0         | 305.              | 1890.             | -0.6          | 5.0           | 5.0               | 173.            |
| 2.5         | 381.              | 1966.             | 1.5           | 3.1           | 3.5               | 206.            |
| 3.0         | 457.              | 2042.             | 2.3           | 3.0           | 3.8               | 218.            |
| 3.5         | 533.              | 2118.             | 2.2           | 3.9           | 3.7               | 217.            |
| 4.0         | 610.              | 2195.             | 3.0           | 3.2           | 4.4               | 223.            |
| 4.5         | 686.              | 2271.             | 4.5           | 2.2           | 5.0               | 244.            |
| 5.0         | 762.              | 2347.             | 5.2           | 1.2           | 5.3               | 257.            |
| 5.5         | 839.              | 2424.             | 5.9           | 1.0           | 5.0               | 260.            |
| 6.0         | 915.              | 2500.             | 9.4           | 2.0           | 9.6               | 258.            |
| 6.5         | 991.              | 2576.             | 13.4          | 1.8           | 13.5              | 262.            |
| 7.0         | 1067.             | 2652.             | 15.9          | 1.2           | 15.9              | 266.            |
| 7.5         | 1144.             | 2729.             | 16.2          | 1.7           | 16.3              | 264.            |
| 8.0         | 1220.             | 2805.             | 12.5          | 1.9           | 12.6              | 262.            |
| 8.5         | 1296.             | 2881.             | 9.7           | 0.8           | 9.7               | 265.            |
| 9.0         | 1372.             | 2957.             | 5.4           | -0.5          | 5.4               | 265.            |
| 9.5         | 1448.             | 3033.             | 3.6           | -2.0          | 4.1               | 269.            |
| 10.0        | 1525.             | 3110.             | 6.0           | -1.2          | 6.1               | 281.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3843

DATE 01/15/77 TIME 13:55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | 6.52          |            | 0.0         |              | 2.6       | 225.      |
| 1.0         | 150               | 1735              | 5.87          | -0.65      | -2.78       | 0.15         | 3.4       | 243.      |
| 2.0         | 300               | 1885              | 4.64          | -1.23      | -2.79       | 0.14         | 3.7       | 256.      |
| 2.7         | 415.              | 2000.             | 3.03          | -1.32      | -1.12       | 1.81         | 4.3       | 236.      |
| 3.3         | 500               | 2085              | 3.39          | 0.07       | 1.31        | 4.24         | 6.2       | 242.      |
| 6.0         | 915.              | 2500.             | 1.60          | -1.80      | -0.38       | 2.55         | 14.2      | 272.      |
| 9.2         | 1415.             | 3000.             | -2.05         | -3.17      | -4.76       | -1.63        | 15.2      | 281.      |
| 14.8        | 2415.             | 4000.             | -9.86         | -8.29      | -1.36       | 1.57         |           |           |
| 20.4        | 3415.             | 5000.             | -15.34        | -5.48      | -1.38       | 1.55         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3843

DATE 01/15/77 TIME 13:55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | 1.8           | 1.8           | 2.6               | 225.            |
| 0.5         | 76.               | 1661.             | 2.9           | 1.5           | 3.2               | 242.            |
| 1.0         | 152.              | 1737.             | 3.0           | 1.6           | 3.4               | 243.            |
| 1.5         | 229.              | 1814.             | 3.6           | 1.2           | 3.8               | 252.            |
| 2.0         | 305.              | 1890.             | 3.6           | 0.9           | 3.7               | 256.            |
| 2.5         | 381.              | 1966.             | 3.2           | 2.0           | 3.8               | 237.            |
| 3.0         | 459.              | 2044.             | 4.1           | 3.0           | 5.1               | 234.            |
| 3.5         | 536.              | 2121.             | 6.7           | 2.6           | 7.2               | 249.            |
| 4.0         | 612.              | 2197.             | 8.7           | 1.5           | 8.8               | 260.            |
| 4.5         | 688.              | 2273.             | 9.9           | 0.7           | 9.9               | 266.            |
| 5.0         | 764.              | 2349.             | 12.0          | 0.3           | 12.0              | 268.            |
| 5.5         | 840.              | 2425.             | 14.0          | -0.1          | 14.0              | 271.            |
| 6.0         | 917.              | 2502.             | 14.2          | -0.4          | 14.2              | 272.            |
| 6.5         | 993.              | 2578.             | 14.2          | -0.4          | 14.2              | 272.            |
| 7.0         | 1072.             | 2657.             | 14.4          | -1.0          | 14.4              | 274.            |
| 7.5         | 1150.             | 2735.             | 13.5          | -1.4          | 13.5              | 276.            |
| 8.0         | 1226.             | 2811.             | 13.2          | -1.0          | 13.2              | 274.            |
| 8.5         | 1303.             | 2888.             | 13.0          | -1.7          | 13.1              | 277.            |
| 9.0         | 1379.             | 2964.             | 13.7          | -2.4          | 13.9              | 280.            |
| 9.5         | 1475.             | 3060.             | 16.9          | -3.5          | 17.3              | 282.            |
| 10.0        | 1591.             | 3176.             | 16.0          | -3.6          | 16.4              | 283.            |
| 10.5        | 1683.             | 3268.             | 13.0          | -3.0          | 13.4              | 283.            |
| 11.0        | 1759.             | 3344.             | 11.2          | -3.3          | 11.7              | 286.            |
| 11.5        | 1835.             | 3420.             | 11.3          | -3.6          | 11.9              | 288.            |
| 12.0        | 1911.             | 3496.             | 11.4          | -4.4          | 12.2              | 291.            |



UTAH UAUB ELEV 1585 METERS SOUNDING ID 3845  
 DATE 01/17/77 TIME 07:35MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -11.65        |            | 0.0         |              | 4.1       | 135.      |
| 1.0         | 150               | 1735              | -4.80         | 6.85       | 12.44       | 15.37        | 3.3       | 139.      |
| 1.5         | ★ 228             | 1813              | -1.09         |            | 6.87        | 9.79         |           |           |
| 2.0         | 300               | 1885              | -1.28         | 3.52       | 0.38        | 3.31         | 4.4       | 161.      |
| 2.7         | 415.              | 2000.             | -1.09         | 0.19       | 0.19        | 3.12         | 5.1       | 199.      |
| 3.3         | 500               | 2085              | -0.79         | 0.30       | -0.38       | 2.55         | 4.4       | 213.      |
| 5.8         | 915.              | 2500.             | -4.67         | -3.87      | -2.49       | 0.44         | 4.7       | 263.      |
| 9.0         | 1415.             | ?3000.            | -6.53         | -1.86      | -0.39       | 2.54         | 12.4      | 277.      |
| 15.6        | 2415.             | 4000.             | -8.69         | -2.16      | 0.0         | 2.93         |           |           |
| 22.2        | 3415.             | 5000.             | -9.77         | -1.08      | -0.78       | 2.15         |           |           |

UTAH UAUB ELEV 1585 METERS SOUNDING ID 3845  
 DATE 01/17/77 TIME 07:35MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | -2.9          | 2.9           | 4.1               | 135.            |
| 0.5         | 76.               | 1661.             | -2.1          | -0.4          | 2.2               | 80.             |
| 1.0         | 152.              | 1737.             | -2.1          | 2.6           | 3.4               | 141.            |
| 1.5         | 229.              | 1814.             | -1.4          | 3.5           | 3.8               | 158.            |
| 2.0         | 305.              | 1890.             | -1.4          | 4.2           | 4.5               | 162.            |
| 2.5         | 381.              | 1966.             | 0.7           | 4.7           | 4.8               | 189.            |
| 3.0         | 457.              | 2042.             | 2.8           | 4.7           | 5.4               | 211.            |
| 3.5         | 533.              | 2118.             | 2.1           | 3.0           | 3.6               | 215.            |
| 4.0         | 610.              | 2195.             | 1.7           | 2.0           | 2.6               | 221.            |
| 4.5         | 686.              | 2271.             | 2.6           | 1.1           | 2.8               | 246.            |
| 5.0         | 785.              | 2370.             | 3.3           | 2.2           | 4.0               | 237.            |
| 5.5         | 875.              | 2460.             | 3.9           | 1.1           | 4.1               | 254.            |
| 6.0         | 951.              | 2536.             | 5.3           | -0.2          | 5.3               | 272.            |
| 6.5         | 1027.             | 2612.             | 6.7           | 0.3           | 6.7               | 268.            |
| 7.0         | 1103.             | 2688.             | 9.1           | -1.1          | 9.1               | 277.            |
| 7.5         | 1179.             | 2764.             | 13.4          | -0.9          | 13.4              | 274.            |
| 8.0         | 1256.             | 2841.             | 16.1          | -1.6          | 16.2              | 276.            |
| 8.5         | 1332.             | 2917.             | 14.0          | -2.2          | 14.2              | 279.            |
| 9.0         | 1408.             | 2993.             | 12.5          | -1.5          | 12.6              | 277.            |
| 9.5         | 1484.             | 3069.             | 10.2          | -0.3          | 10.2              | 272.            |
| 10.0        | 1560.             | 3145.             | 8.5           | 0.7           | 8.5               | 265.            |
| 10.5        | 1637.             | 3222.             | 6.4           | 0.3           | 6.4               | 267.            |
| 11.0        | 1713.             | 3298.             | 5.4           | -2.4          | 6.8               | 240.            |
| 11.5        | 1789.             | 3374.             | 5.5           | -4.8          | 7.3               | 311.            |
| 12.0        | 1865.             | 3450.             | 6.0           | -7.3          | 9.4               | 321.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3847

DATE 01/17/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | 10.99         |            | 0.0         |              | 1.5       | 135.      |
| 1.0         | 150.              | 1735.             | 10.25         | -0.74      | -1.46       | 1.47         | 0.7       | 113.      |
| 2.0         | 300.              | 1885.             | 10.06         | -0.19      | -2.01       | 0.92         | 1.1       | 92.       |
| 2.7         | 415.              | 2000.             | 8.39          | -1.48      | 0.0         | 2.93         | 0.9       | 82.       |
| 3.3         | 500.              | 2085.             | 8.60          | 0.02       | 0.18        | 3.11         | 1.1       | 53.       |
| 6.0         | 915.              | 2500.             | 8.86          | 0.26       | 1.47        | 4.40         | 11.4      | 284.      |
| 9.1         | 1415.             | 3000.             | 6.99          | -1.56      | -4.06       | -1.13        | 7.6       | 323.      |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3847

DATE 01/17/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | -1.1          | 1.1           | 1.5               | 135.            |
| 0.5         | 76.               | 1661.             | -0.1          | 0.4           | 0.4               | 160.            |
| 1.0         | 152.              | 1737.             | -0.7          | 0.3           | 0.8               | 112.            |
| 1.5         | 229.              | 1814.             | -1.0          | 0.3           | 1.0               | 108.            |
| 2.0         | 305.              | 1890.             | -1.1          | 0.0           | 1.1               | 91.             |
| 2.5         | 381.              | 1966.             | -0.9          | 0.0           | 0.9               | 91.             |
| 3.0         | 461.              | 2046.             | -0.8          | -0.3          | 0.9               | 69.             |
| 3.5         | 537.              | 2122.             | -0.8          | -0.9          | 1.2               | 39.             |
| 4.0         | 613.              | 2198.             | 2.5           | -1.8          | 3.1               | 306.            |
| 4.5         | 689.              | 2274.             | 5.4           | -1.9          | 5.8               | 290.            |
| 5.0         | 766.              | 2351.             | 8.7           | -2.7          | 9.1               | 287.            |
| 5.5         | 842.              | 2427.             | 11.8          | -2.7          | 12.1              | 283.            |
| 6.0         | 918.              | 2503.             | 11.0          | -2.8          | 11.3              | 284.            |
| 6.5         | 994.              | 2579.             | 8.2           | -2.8          | 8.7               | 289.            |
| 7.0         | 1070.             | 2655.             | 4.1           | -2.9          | 5.0               | 305.            |
| 7.5         | 1147.             | 2732.             | 4.4           | -2.6          | 5.1               | 301.            |
| 8.0         | 1223.             | 2808.             | 4.0           | -3.6          | 5.4               | 312.            |
| 8.5         | 1299.             | 2884.             | 4.1           | -4.2          | 5.9               | 315.            |
| 9.0         | 1388.             | 2973.             | 4.1           | -5.6          | 6.0               | 324.            |
| 9.5         | 1477.             | 3062.             | 5.8           | -7.3          | 9.3               | 322.            |
| 10.0        | 1576.             | 3161.             | 7.2           | -9.4          | 11.9              | 323.            |
| 10.5        | 1665.             | 3250.             | 9.4           | -12.8         | 15.9              | 324.            |
| 11.0        | 1741.             | 3326.             | 10.1          | -13.4         | 16.8              | 323.            |
| 11.5        | 1817.             | 3402.             | 15.2          | -20.8         | 25.7              | 324.            |
| 12.0        | 1894.             | 3479.             | 11.9          | -16.4         | 20.3              | 324.            |



UTAH UAUB                      ELEV 1585 METERS                      SOUNDING ID 3840  
 DATE 01/19/77    TIME 07:25MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -8.39         |            | 0.0         |              | 1.0       | 270.      |
| 1.0         | 150               | 1735              | -2.08         | 6.31       | 7.25        | 10.18        | 0.9       | 194.      |
| 2.0         | 300               | 1885              | 0.34          | 2.42       | 7.54        | 10.47        | 1.0       | 163.      |
| 2.7         | 415.              | 2000.             | 2.74          | 2.40       | 0.37        | 3.30         | 0.5       | 197.      |
| 3.3         | 500               | 2085.             | 2.74          | 0.00       | 0.0         | 2.93         | 0.8       | 231.      |
| 6.0         | 915.              | 2500.             | 2.08          | -0.18      | -2.63       | 0.30         | 5.8       | 77.       |
| 9.3         | 1415.             | 3000.             | -1.18         | -3.74      | -1.90       | 1.03         | 6.9       | 59.       |
| 14.3        | *2172.            | 3757.             | -5.16         |            | 0.57        | 3.50         |           |           |
| 15.3        | *2325.            | 3910.             | -2.54         |            | 3.44        | 6.36         |           |           |
| 15.8        | 2415.             | 4000.             | -2.82         | -1.65      | -0.19       | 2.74         |           |           |
| 22.4        | 3415.             | 5000.             | -7.12         | -4.29      | -2.32       | 0.61         |           |           |
| 28.9        | 4415.             | 6000.             | -14.84        | -7.72      | -2.55       | 0.37         |           |           |

UTAH UAUB                      ELEV 1585 METERS                      SOUNDING ID 3840  
 DATE 01/19/77    TIME 07:25MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | 1.0           | 0.0           | 1.0               | 270.            |
| 0.5         | 76.               | 1661.             | 1.0           | 0.5           | 1.1               | 246.            |
| 1.0         | 152.              | 1737.             | 0.2           | 0.9           | 0.9               | 192.            |
| 1.5         | 229.              | 1814.             | -0.9          | 0.4           | 1.0               | 115.            |
| 2.0         | 305.              | 1890.             | -0.2          | 1.0           | 1.0               | 167.            |
| 2.5         | 381.              | 1966.             | 0.0           | 0.4           | 0.4               | 180.            |
| 3.0         | 457.              | 2042.             | 0.3           | 0.4           | 0.5               | 217.            |
| 3.5         | 533.              | 2118.             | 0.9           | 0.5           | 1.0               | 242.            |
| 4.0         | 610.              | 2195.             | 1.2           | 0.6           | 1.3               | 296.            |
| 4.5         | 686.              | 2271.             | -2.1          | -0.4          | 2.2               | 79.             |
| 5.0         | 762.              | 2347.             | -2.3          | -0.4          | 2.3               | 80.             |
| 5.5         | 838.              | 2423.             | -4.7          | -1.1          | 4.8               | 77.             |
| 6.0         | 914.              | 2499.             | -5.7          | -1.3          | 5.8               | 77.             |
| 6.5         | 991.              | 2576.             | -5.9          | -1.8          | 6.2               | 73.             |
| 7.0         | 1067.             | 2652.             | -5.9          | -2.1          | 6.3               | 70.             |
| 7.5         | 1143.             | 2728.             | -5.9          | -2.3          | 6.4               | 69.             |
| 8.0         | 1219.             | 2804.             | -4.8          | -2.4          | 5.4               | 64.             |
| 8.5         | 1296.             | 2881.             | -5.9          | -3.2          | 6.7               | 62.             |
| 9.0         | 1372.             | 2957.             | -5.2          | -3.5          | 7.1               | 61.             |
| 9.5         | 1448.             | 3033.             | -5.6          | -3.7          | 6.7               | 57.             |
| 10.0        | 1524.             | 3109.             | -4.3          | -3.8          | 5.7               | 49.             |
| 10.5        | 1600.             | 3185.             | -4.0          | -3.6          | 5.5               | 50.             |
| 11.0        | 1677.             | 3262.             | -3.9          | -4.2          | 5.7               | 44.             |
| 11.5        | 1753.             | 3338.             | -3.5          | -4.1          | 5.5               | 40.             |
| 12.0        | 1830.             | 3415.             | -2.7          | -5.3          | 6.0               | 27.             |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3842

DATE 01/19/77

TIME 13:53MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | 9.51          |            | 0.0         |              | 3.6       | 270.      |
| 1.0         | 150               | 1735              | 8.58          | -0.93      | -1.47       | 1.46         | 3.9       | 257.      |
| 2.0         | 300               | 1885              | 8.31          | -0.28      | -2.76       | 0.17         | 2.7       | 265.      |
| 2.6         | 415.              | 2000.             | 6.34          | -1.58      | -2.76       | 5.69         | 1.3       | 288.      |
| 3.1         | 500               | 2085.             | 6.34          | -0.39      | 11.33       | 14.26        | 1.5       | 319.      |
| 4.0         | * 631             | 2216              | 12.09         |            | 4.56        | 7.49         |           |           |
| 5.6         | 915.              | 2500.             | 6.99          | 1.65       | -4.97       | -2.04        | 5.0       | 84.       |
| 8.2         | 1415.             | 3000.             | 6.99          | -0.53      | -0.92       | -2.01        | 3.1       | 155.      |
| 14.4        | 2415.             | 4000.             | 2.08          | -5.38      | -3.37       | -0.44        |           |           |
| 21.0        | 3415.             | 5000.             | -3.70         | -5.78      | -2.67       | 0.25         |           |           |
| 27.4        | 4415.             | 6000.             | -9.77         | -6.07      | 1.16        | 4.09         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3842

DATE 01/19/77

TIME 13:53MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | 3.6           | 0.0           | 3.6               | 270.            |
| 0.5         | 76.               | 1661.             | 4.3           | 1.6           | 4.6               | 249.            |
| 1.0         | 152.              | 1737.             | 3.7           | 0.9           | 3.8               | 257.            |
| 1.5         | 229.              | 1814.             | 3.6           | 0.4           | 3.6               | 263.            |
| 2.0         | 305.              | 1890.             | 2.7           | 0.2           | 2.7               | 265.            |
| 2.5         | 392.              | 1977.             | 1.6           | -0.1          | 1.6               | 274.            |
| 3.0         | 479.              | 2064.             | 0.3           | -0.4          | 0.5               | 328.            |
| 3.5         | 555.              | 2140.             | 4.0           | -1.7          | 4.3               | 293.            |
| 4.0         | 632.              | 2217.             | 4.6           | -2.9          | 5.4               | 303.            |
| 4.5         | 708.              | 2293.             | 0.8           | -4.8          | 4.8               | 351.            |
| 5.0         | 798.              | 2383.             | -4.7          | -0.7          | 4.7               | 81.             |
| 5.5         | 898.              | 2483.             | -4.9          | -0.6          | 4.9               | 83.             |
| 6.0         | 1044.             | 2629.             | -5.1          | -0.2          | 5.1               | 88.             |
| 6.5         | 1154.             | 2739.             | -3.7          | 0.3           | 3.7               | 95.             |
| 7.0         | 1230.             | 2815.             | -3.2          | 0.7           | 3.2               | 102.            |
| 7.5         | 1307.             | 2892.             | -2.1          | 1.2           | 2.4               | 119.            |
| 8.0         | 1383.             | 2968.             | -1.3          | 2.4           | 2.7               | 151.            |
| 8.5         | 1459.             | 3044.             | -1.1          | 3.4           | 3.6               | 161.            |
| 9.0         | 1535.             | 3120.             | -0.9          | 4.4           | 4.5               | 169.            |
| 9.5         | 1611.             | 3196.             | 0.4           | 5.0           | 5.1               | 185.            |
| 10.0        | 1688.             | 3273.             | 1.6           | 5.8           | 6.0               | 196.            |
| 10.5        | 1764.             | 3349.             | 4.7           | 5.4           | 7.1               | 221.            |
| 11.0        | 1840.             | 3425.             | 5.9           | 5.5           | 6.8               | 239.            |
| 11.5        | 1934.             | 3519.             | 6.4           | 5.2           | 8.2               | 231.            |
| 12.0        | 2028.             | 3613.             | 5.1           | 4.4           | 6.7               | 229.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3844

DATE 01/21/77

TIME 07:29MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -5.75         |            | 0.0         |              | 2.6       | 135.      |
| 1.0         | 150               | 1735              | -2.83         | 2.91       | 6.11        | 9.03         | 3.7       | 147.      |
| 2.0         | 300               | 1885              | -0.90         | 1.93       | 2.84        | 5.77         | 2.5       | 172.      |
| 2.7         | 415.              | 2000.             | 0.26          | 0.96       | 0.94        | 3.87         | 2.0       | 151.      |
| 3.3         | * 495.            | 2080.             | 0.45          |            | 0.57        | 3.49         |           |           |
| 3.3         | 500               | 2085              | 0.36          | 0.30       | 0.75        | 3.68         | 1.4       | 122.      |
| 6.0         | 915.              | 2500.             | 0.83          | 0.60       | -0.38       | 2.55         | 6.5       | 172.      |
| 9.3         | 1415.             | 3000.             | -0.13         | -1.14      | 0.19        | 3.12         | 5.7       | 199.      |
| 15.8        | 2415.             | 4000.             | -1.38         | -1.25      | 0.0         | 2.93         |           |           |
| 22.4        | 3415.             | 5000.             | -6.63         | -5.25      | -1.73       | 1.19         |           |           |
| 29.0        | 4415.             | 6000.             | -14.04        | -7.42      | -1.96       | 0.96         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3844

DATE 01/21/77

TIME 07:29MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | -1.8          | 1.8           | 2.6               | 135.            |
| 0.5         | 76.               | 1661.             | -1.9          | 1.9           | 2.7               | 136.            |
| 1.0         | 152.              | 1737.             | -2.0          | 3.1           | 3.7               | 147.            |
| 1.5         | 229.              | 1814.             | -0.7          | 3.0           | 3.1               | 168.            |
| 2.0         | 305.              | 1890.             | -0.4          | 2.5           | 2.5               | 172.            |
| 2.5         | 381.              | 1966.             | -1.0          | 2.2           | 2.4               | 156.            |
| 3.0         | 457.              | 2042.             | -0.9          | 1.3           | 1.6               | 144.            |
| 3.5         | 533.              | 2118.             | -1.3          | 0.3           | 1.3               | 105.            |
| 4.0         | 610.              | 2195.             | -0.7          | 1.1           | 1.3               | 148.            |
| 4.5         | 686.              | 2271.             | 0.8           | 1.8           | 2.0               | 204.            |
| 5.0         | 762.              | 2347.             | 1.6           | 3.3           | 3.6               | 206.            |
| 5.5         | 838.              | 2423.             | 0.9           | 5.5           | 5.6               | 188.            |
| 6.0         | 914.              | 2499.             | -0.9          | 6.4           | 6.4               | 172.            |
| 6.5         | 991.              | 2575.             | 0.9           | 8.3           | 8.3               | 186.            |
| 7.0         | 1067.             | 2652.             | 1.9           | 8.8           | 9.1               | 192.            |
| 7.5         | 1143.             | 2728.             | 2.3           | 7.8           | 8.1               | 197.            |
| 8.0         | 1219.             | 2804.             | 1.9           | 8.0           | 8.2               | 194.            |
| 8.5         | 1295.             | 2880.             | 1.8           | 6.3           | 6.5               | 196.            |
| 9.0         | 1372.             | 2957.             | 1.8           | 5.3           | 5.6               | 199.            |
| 9.5         | 1448.             | 3033.             | 1.9           | 5.5           | 5.8               | 199.            |
| 10.0        | 1524.             | 3109.             | 3.2           | 6.9           | 7.6               | 205.            |
| 10.5        | 1600.             | 3185.             | 3.8           | 7.3           | 8.0               | 205.            |
| 11.0        | 1676.             | 3261.             | 3.8           | 6.7           | 7.8               | 210.            |
| 11.5        | 1753.             | 3338.             | 3.6           | 5.6           | 6.7               | 213.            |
| 12.0        | 1829.             | 3414.             | 4.4           | 5.0           | 6.7               | 222.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3846

DATE 01/21/77

TIME 13:50MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | 9.14          |            | 0.0         |              | 2.6       | 270.      |
| 0.7         | 150               | 1735              | 5.69          | -3.45      | -1.86       | 1.07         | 4.1       | 268.      |
| 1.5         | 300               | 1885              | 4.83          | -0.86      | -0.93       | 2.00         | 1.8       | 322.      |
| 2.2         | 415.              | 2000.             | 4.64          | 0.00       | -0.74       | 2.18         | 2.2       | 201.      |
| 2.8         | 500               | 2085              | 4.54          | -0.28      | -1.30       | 1.62         | 1.2       | 204.      |
| 4.0         | * 685             | 2270              | 3.50          |            | -0.19       | 2.74         |           |           |
| 5.5         | * 914             | 2499              | 5.39          |            | 0.19        | 3.11         |           |           |
| 5.5         | 915.              | 2500.             | 4.83          | 0.40       | -1.49       | 1.44         | 5.6       | 238.      |
| 8.8         | 1415.             | 3000.             | 3.69          | -1.24      | -2.24       | 0.69         | 11.0      | 192.      |
| 15.3        | 2415.             | 4000.             | 0.64          | -3.06      | -1.13       | 1.80         |           |           |
| 21.8        | 3415.             | 5000.             | -5.74         | -6.38      | -3.84       | -0.92        |           |           |
| 27.4        | 4415.             | 6000.             | -13.34        | -7.60      | -1.96       | 0.97         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3846

DATE 01/21/77

TIME 13:50MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | 2.6           | 0.0           | 2.6               | 270.            |
| 0.5         | 76.               | 1661.             | 3.2           | 0.3           | 3.3               | 264.            |
| 1.0         | 229.              | 1814.             | 4.9           | -0.1          | 4.9               | 272.            |
| 1.5         | 305.              | 1890.             | 0.9           | -1.3          | 1.5               | 325.            |
| 2.0         | 381.              | 1966.             | 0.2           | -2.4          | 2.4               | 355.            |
| 2.5         | 457.              | 2042.             | 0.4           | -1.9          | 2.0               | 11.             |
| 3.0         | 533.              | 2118.             | 0.1           | -0.6          | 0.6               | 355.            |
| 3.5         | 610.              | 2195.             | 0.9           | -0.9          | 1.3               | 315.            |
| 4.0         | 686.              | 2271.             | 3.1           | -0.7          | 3.2               | 282.            |
| 4.5         | 762.              | 2347.             | 4.3           | 0.1           | 4.3               | 269.            |
| 5.0         | 838.              | 2423.             | 4.6           | 1.8           | 4.9               | 249.            |
| 5.5         | 914.              | 2499.             | 4.7           | 2.9           | 5.6               | 238.            |
| 6.0         | 991.              | 2576.             | 4.2           | 4.2           | 5.9               | 225.            |
| 6.5         | 1067.             | 2652.             | 2.8           | 5.3           | 6.0               | 208.            |
| 7.0         | 1143.             | 2728.             | 1.6           | 8.1           | 8.2               | 191.            |
| 7.5         | 1219.             | 2804.             | 1.6           | 10.1          | 10.2              | 189.            |
| 8.0         | 1295.             | 2880.             | 1.8           | 10.1          | 10.3              | 190.            |
| 8.5         | 1372.             | 2957.             | 2.1           | 10.7          | 10.9              | 191.            |
| 9.0         | 1448.             | 3033.             | 2.5           | 10.8          | 11.1              | 193.            |
| 9.5         | 1524.             | 3109.             | 3.0           | 10.2          | 10.6              | 196.            |
| 10.0        | 1600.             | 3185.             | 3.7           | 8.6           | 9.4               | 203.            |
| 10.5        | 1676.             | 3261.             | 4.5           | 9.3           | 10.3              | 206.            |
| 11.0        | 1753.             | 3338.             | 5.0           | 9.2           | 10.4              | 209.            |
| 11.5        | 1836.             | 3421.             | 6.0           | 9.1           | 10.9              | 214.            |
| 12.0        | 1912.             | 3497.             | 4.9           | 9.0           | 10.2              | 209.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3974

DATE 01/23/77

TIME 07:32MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | 2.93          |            | 0.0         |              | 0.5       | 135.      |
| 1.0         | 150               | 1735              | 2.55          | -0.38      | -2.06       | 0.87         | M         | M         |
| 2.0         | 300               | 1885              | 1.79          | -0.77      | -0.38       | 2.55         | M         | M         |
| 2.7         | 415.              | 2000.             | 1.12          | -0.66      | -1.69       | 1.23         | M         | M         |
| 3.3         | 500               | 2085.             | 0.84          | -0.29      | -1.51       | 1.42         | M         | M         |
| 6.0         | 915.              | 2500.             | -0.98         | -1.82      | -1.33       | 1.60         | M         | M         |
| 9.3         | 1415.             | 3000.             | -3.12         | -2.13      | -0.95       | 1.97         | M         | M         |
| 15.3        | 2415.             | 4000.             | -11.05        | -7.93      | -5.07       | -2.14        |           |           |
| 21.2        | 3415.             | 5000.             | -16.34        | -5.29      | -1.97       | 0.95         |           |           |
| 26.8        | 4415.             | 6000.             | -25.65        | -9.31      | -2.41       | 0.52         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3974

DATE 01/23/77

TIME 07:32MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | -0.4          | 0.4           | 0.5               | 135.            |



UTAH UALB                      ELEV 1585 METERS                      SOUNDING ID 3977  
 DATE 01/23/77    TIME 13:54MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | 3.88          |            | 0.0         |              | 1.5       | 315.      |
| 1.0         | 150               | 1735              | 2.93          | -0.95      | -0.75       | 2.18         | M         | M         |
| 2.0         | 300               | 1885              | 2.27          | -0.66      | -1.88       | 1.05         | M         | M         |
| 2.7         | 415.              | 2000.             | 1.60          | -0.67      | -1.69       | 1.24         | M         | M         |
| 3.3         | 500               | 2085.             | 1.04          | -0.56      | -0.19       | 2.74         | M         | M         |
| 6.0         | 915.              | 2500.             | 0.83          | -0.21      | -0.57       | 2.36         | M         | M         |
| 9.3         | 1415.             | 3000.             | -0.89         | -1.72      | -0.57       | 2.36         | M         | M         |
| 15.3        | 2415.             | 4000.             | -5.74         | -4.85      | -1.35       | 1.58         |           |           |
| 21.8        | 3415.             | 5000.             | -12.35        | -6.60      | -2.93       | -0.01        |           |           |
| 28.1        | 4415.             | 6000.             | -17.34        | -5.00      | -2.37       | 0.55         |           |           |

UTAH UALB                      ELEV 1585 METERS                      SOUNDING ID 3977  
 DATE 01/23/77    TIME 13:54MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | 1.1           | -1.1          | 1.5               | 315.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3980

DATE 01/25/77

TIME 07:27MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -10.66        |            | 0.0         |              | 4.6       | 225.      |
| 1.0         | 150               | 1735              | -6.74         | 3.92       | 4.44        | 7.37         | 1.6       | 132.      |
| 1.3         | * 190             | 1775              | -6.14         |            | 3.47        | 6.40         |           |           |
| 2.0         | 300               | 1885              | -5.75         | 0.99       | 1.92        | 4.85         | 0.6       | 194.      |
| 2.7         | 415.              | 2000.             | -4.97         | 0.59       | 0.38        | 3.31         | 1.2       | 183.      |
| 3.3         | 500               | 2085              | -4.97         | 0.20       | -0.38       | 2.54         | 2.0       | 175.      |
| 6.0         | 915.              | 2500.             | -6.14         | -1.17      | -1.73       | 1.20         | 3.6       | 251.      |
| 9.3         | 1415.             | 3000.             | -7.02         | -0.88      | -1.74       | 1.19         | 1.6       | 148.      |
| 15.8        | 2415.             | 4000.             | -12.74        | -5.73      | -0.98       | 1.95         |           |           |
| 22.4        | 3415.             | 5000.             | -16.94        | -4.20      | -2.17       | 0.75         |           |           |
| 28.8        | 4415.             | 6000.             | -24.72        | -7.78      | -5.21       | -2.28        |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3980

DATE 01/25/77

TIME 07:27MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | 3.3           | 3.3           | 4.6               | 225.            |
| 0.5         | 76.               | 1661.             | -1.1          | 2.9           | 3.1               | 160.            |
| 1.0         | 152.              | 1737.             | -1.2          | 1.0           | 1.6               | 131.            |
| 1.5         | 229.              | 1814.             | 0.4           | 1.0           | 1.1               | 203.            |
| 2.0         | 305.              | 1890.             | 0.1           | 0.5           | 0.5               | 193.            |
| 2.5         | 381.              | 1966.             | 0.0           | 0.5           | 0.5               | 185.            |
| 3.0         | 457.              | 2042.             | 0.0           | 2.0           | 2.0               | 181.            |
| 3.5         | 533.              | 2118.             | -0.3          | 2.0           | 2.0               | 171.            |
| 4.0         | 610.              | 2195.             | -0.1          | 2.1           | 2.1               | 177.            |
| 4.5         | 686.              | 2271.             | 0.7           | 1.9           | 2.1               | 201.            |
| 5.0         | 762.              | 2347.             | 2.2           | 2.2           | 3.1               | 226.            |
| 5.5         | 842.              | 2427.             | 3.0           | 2.0           | 3.6               | 236.            |
| 6.0         | 918.              | 2503.             | 3.4           | 1.2           | 3.6               | 251.            |
| 6.5         | 994.              | 2579.             | 4.3           | 1.7           | 4.6               | 249.            |
| 7.0         | 1070.             | 2655.             | 6.0           | 1.2           | 6.1               | 258.            |
| 7.5         | 1146.             | 2731.             | 4.7           | 0.7           | 4.8               | 261.            |
| 8.0         | 1223.             | 2808.             | 2.1           | 1.3           | 2.5               | 238.            |
| 8.5         | 1299.             | 2884.             | 1.0           | 2.7           | 2.9               | 200.            |
| 9.0         | 1375.             | 2960.             | -0.8          | 1.9           | 2.0               | 156.            |
| 9.5         | 1451.             | 3036.             | -0.8          | 1.0           | 1.3               | 141.            |
| 10.0        | 1527.             | 3112.             | 0.2           | 2.0           | 2.0               | 187.            |
| 10.5        | 1604.             | 3189.             | 0.9           | 1.8           | 2.0               | 205.            |
| 11.0        | 1680.             | 3265.             | 2.3           | 1.7           | 2.8               | 233.            |
| 11.5        | 1756.             | 3341.             | 3.9           | 1.0           | 4.1               | 255.            |
| 12.0        | 1832.             | 3417.             | 3.8           | -1.5          | 4.1               | 291.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3961

DATE 01/25/77

TIME 13:55MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | 2.74          |            | 0.0         |              | 1.5       | 315.      |
| 1.0         | 150               | 1735              | 2.26          | -0.48      | 0.0         | 2.93         | 2.5       | 341.      |
| 2.0         | 300               | 1885              | 1.60          | -0.66      | -2.44       | 0.48         | 2.5       | 341.      |
| 2.7         | 415.              | 2000.             | 0.64          | -0.77      | -1.51       | 1.42         | 1.5       | 332.      |
| 3.3         | 500               | 2085              | 0.27          | -0.56      | -1.32       | 1.61         | 2.0       | 286.      |
| 6.0         | 915.              | ?2500.            | -0.60         | -0.87      | -2.46       | 0.46         | 6.0       | 230.      |
| 9.3         | 1415.             | ?3000.            | -3.50         | -2.91      | -1.34       | 1.59         | 7.9       | 245.      |
| 15.8        | 2415.             | 4000.             | -9.38         | -5.87      | -1.94       | 0.99         |           |           |
| 22.4        | 3415.             | 5000.             | -16.34        | -6.96      | -1.97       | 0.95         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3961

DATE 01/25/77

TIME 13:55MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | 1.1           | -1.1          | 1.5               | 315.            |
| 0.5         | 76.               | 1661.             | 1.1           | -1.6          | 1.9               | 326.            |
| 1.0         | 152.              | 1737.             | 0.8           | -2.4          | 2.5               | 342.            |
| 1.5         | 229.              | 1814.             | 1.3           | -2.7          | 3.0               | 334.            |
| 2.0         | 305.              | 1890.             | 0.8           | -2.3          | 2.4               | 341.            |
| 2.5         | 381.              | 1966.             | 0.9           | -1.5          | 1.8               | 328.            |
| 3.0         | 457.              | 2042.             | 0.5           | -1.0          | 1.1               | 336.            |
| 3.5         | 533.              | 2118.             | 2.5           | 1.1           | 2.7               | 246.            |
| 4.0         | 610.              | 2195.             | 3.9           | 2.0           | 4.4               | 244.            |
| 4.5         | 686.              | 2271.             | 4.1           | 1.8           | 4.5               | 246.            |
| 5.0         | 762.              | 2347.             | 3.1           | 2.7           | 4.2               | 229.            |
| 5.5         | 838.              | 2423.             | 3.6           | 3.0           | 4.6               | 230.            |
| 6.0         | 914.              | 2499.             | 4.6           | 3.8           | 6.0               | 230.            |
| 6.5         | 991.              | 2576.             | 6.4           | 3.9           | 7.5               | 239.            |
| 7.0         | 1067.             | 2652.             | 7.5           | 4.7           | 8.9               | 238.            |
| 7.5         | 1143.             | 2728.             | 7.9           | 5.2           | 9.5               | 237.            |
| 8.0         | 1219.             | 2804.             | 7.6           | 4.8           | 9.0               | 238.            |
| 8.5         | 1295.             | 2880.             | 8.1           | 3.7           | 8.9               | 245.            |
| 9.0         | 1372.             | 2957.             | 7.4           | 3.8           | 8.3               | 243.            |
| 9.5         | 1448.             | 3033.             | 7.0           | 3.2           | 7.7               | 246.            |
| 10.0        | 1524.             | 3109.             | 7.4           | 2.7           | 7.9               | 250.            |
| 10.5        | 1600.             | 3185.             | 7.5           | 1.7           | 7.7               | 257.            |
| 11.0        | 1676.             | 3261.             | 7.8           | 0.6           | 7.8               | 260.            |
| 11.5        | 1753.             | 3338.             | 8.0           | 1.2           | 8.0               | 262.            |
| 12.0        | 1829.             | 3414.             | 6.3           | 0.6           | 6.3               | 264.            |



UTAH UA01B

ELEV 1585 METERS

SOUNDING ID 3964

DATE 01/27/77 TIME 07:26MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -11.85        |            | 0.0         |              | 2.6       | 135.      |
| 1.0         | 150               | 1735              | -5.86         | 5.09       | 9.42        | 12.34        | 4.8       | 167.      |
| 2.0         | 300               | 1885              | -2.16         | 3.70       | 0.38        | 3.31         | 2.5       | 173.      |
| 2.0         | * 304             | 1889              | -2.15         |            | 0.38        | 3.31         |           |           |
| 2.7         | 415.              | 2000.             | -3.02         | -0.96      | -0.38       | 2.55         | 3.5       | 207.      |
| 3.3         | 500.              | 2085.             | -3.20         | -0.09      | -2.29       | 0.64         | 5.2       | 215.      |
| 5.8         | 915.              | 2500.             | -7.51         | -4.29      | -2.70       | 0.22         | 6.6       | 239.      |
| 9.0         | 1415.             | 3000.             | -8.00         | -0.51      | 0.97        | 3.89         | 8.5       | 259.      |
| 15.5        | 2415.             | 4000.             | -11.26        | -3.26      | -1.37       | 1.56         |           |           |
| 22.0        | 3415.             | 5000.             | -16.74        | -5.49      | -3.56       | -0.63        |           |           |
| 27.8        | 4415.             | 6000.             | -25.04        | -8.30      | -1.81       | 1.12         |           |           |

UTAH UA01B

ELEV 1585 METERS

SOUNDING ID 3964

DATE 01/27/77 TIME 07:26MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | -1.8          | 1.8           | 2.6               | 135.            |
| 0.5         | 76.               | 1661.             | -3.9          | 3.1           | 5.0               | 128.            |
| 1.0         | 152.              | 1737.             | -1.0          | 4.7           | 4.8               | 168.            |
| 1.5         | 229.              | 1814.             | -1.9          | 3.0           | 3.6               | 148.            |
| 2.0         | 305.              | 1890.             | -0.2          | 2.4           | 2.4               | 174.            |
| 2.5         | 381.              | 1966.             | 1.1           | 2.6           | 2.8               | 203.            |
| 3.0         | 457.              | 2042.             | 2.2           | 3.7           | 4.3               | 211.            |
| 3.5         | 533.              | 2118.             | 3.6           | 4.7           | 5.9               | 218.            |
| 4.0         | 610.              | 2195.             | 4.2           | 3.7           | 5.6               | 229.            |
| 4.5         | 691.              | 2276.             | 4.7           | 3.2           | 5.7               | 236.            |
| 5.0         | 772.              | 2357.             | 5.1           | 2.5           | 5.7               | 244.            |
| 5.5         | 860.              | 2445.             | 5.7           | 3.2           | 6.6               | 241.            |
| 6.0         | 946.              | 2531.             | 5.6           | 3.5           | 6.7               | 238.            |
| 6.5         | 1023.             | 2608.             | 5.6           | 3.3           | 6.5               | 239.            |
| 7.0         | 1109.             | 2694.             | 6.2           | 4.1           | 7.4               | 236.            |
| 7.5         | 1189.             | 2774.             | 6.7           | 3.8           | 7.7               | 240.            |
| 8.0         | 1265.             | 2850.             | 7.5           | 4.3           | 8.7               | 240.            |
| 8.5         | 1341.             | 2926.             | 8.4           | 3.9           | 9.3               | 245.            |
| 9.0         | 1418.             | 3003.             | 8.3           | 1.6           | 8.5               | 259.            |
| 9.5         | 1494.             | 3079.             | 7.6           | 0.6           | 7.6               | 265.            |
| 10.0        | 1570.             | 3155.             | 6.4           | -0.1          | 6.4               | 271.            |
| 10.5        | 1646.             | 3231.             | 5.8           | -1.9          | 6.1               | 288.            |
| 11.0        | 1722.             | 3307.             | 5.6           | -2.2          | 6.0               | 291.            |
| 11.5        | 1799.             | 3384.             | 4.5           | -3.7          | 5.8               | 309.            |
| 12.0        | 1875.             | 3460.             | 4.0           | -4.6          | 6.1               | 319.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3967

DATE 01/27/77

TIME 13:52MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | 7.93          |            | 0.0         |              | 3.6       | 225.      |
| 0.9         | 150               | 1735              | 5.90          | -2.03      | -2.59       | 0.34         | 4.9       | 236.      |
| 1.9         | 300               | 1885              | 4.65          | -1.25      | -2.42       | 0.51         | 3.7       | 227.      |
| 2.6         | 415.              | 2000.             | 3.69          | -0.67      | -1.87       | 1.06         | 2.7       | 225.      |
| 3.2         | 500               | 2085.             | 3.60          | -0.39      | -3.18       | -0.25        | 2.6       | 227.      |
| 5.8         | 915.              | 2500.             | 0.45          | -3.14      | -1.51       | 1.42         | 11.0      | 277.      |
| 9.1         | 1415.             | 3000.             | -0.80         | -1.54      | 1.70        | 4.63         | 9.6       | 262.      |
| 14.9        | 2415.             | 4000.             | -5.65         | -4.56      | -1.54       | 1.39         |           |           |
| 21.3        | 3415.             | 5000.             | -9.97         | -4.32      | -1.36       | 1.57         |           |           |
| 27.9        | 4415.             | 6000.             | -15.44        | -5.47      | -3.15       | -0.23        |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3967

DATE 01/27/77

TIME 13:52MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | 2.5           | 2.6           | 3.6               | 225.            |
| 0.5         | 76.               | 1661.             | 2.4           | 1.6           | 2.9               | 236.            |
| 1.0         | 170.              | 1755.             | 4.6           | 3.1           | 5.5               | 236.            |
| 1.5         | 246.              | 1831.             | 3.5           | 2.5           | 4.3               | 234.            |
| 2.0         | 322.              | 1907.             | 2.4           | 2.5           | 3.4               | 224.            |
| 2.5         | 399.              | 1984.             | 1.9           | 1.9           | 2.7               | 225.            |
| 3.0         | 475.              | 2060.             | 1.9           | 2.1           | 2.8               | 223.            |
| 3.5         | 551.              | 2136.             | 1.7           | 1.2           | 2.0               | 234.            |
| 4.0         | 637.              | 2222.             | 1.9           | 0.9           | 2.1               | 245.            |
| 4.5         | 718.              | 2303.             | 2.5           | -0.7          | 2.6               | 285.            |
| 5.0         | 794.              | 2379.             | 7.1           | -1.4          | 7.3               | 281.            |
| 5.5         | 870.              | 2455.             | 10.7          | -1.4          | 10.8              | 277.            |
| 6.0         | 946.              | 2531.             | 11.0          | -1.3          | 11.1              | 277.            |
| 6.5         | 1022.             | 2607.             | 10.5          | -1.4          | 10.6              | 277.            |
| 7.0         | 1099.             | 2684.             | 9.7           | -1.3          | 9.8               | 278.            |
| 7.5         | 1175.             | 2760.             | 10.4          | -0.8          | 10.5              | 275.            |
| 8.0         | 1251.             | 2836.             | 10.8          | -0.5          | 10.8              | 273.            |
| 8.5         | 1327.             | 2912.             | 11.0          | 0.6           | 11.0              | 267.            |
| 9.0         | 1403.             | 2988.             | 9.8           | 1.3           | 9.9               | 262.            |
| 9.5         | 1480.             | 3065.             | 7.9           | 1.3           | 8.0               | 261.            |
| 10.0        | 1556.             | 3141.             | 6.4           | -1.3          | 6.5               | 281.            |
| 10.5        | 1632.             | 3217.             | 5.7           | -1.9          | 6.1               | 289.            |
| 11.0        | 1708.             | 3293.             | 5.0           | -2.4          | 5.5               | 296.            |
| 11.5        | 1784.             | 3369.             | 4.8           | -1.8          | 5.2               | 291.            |
| 12.0        | 1878.             | 3463.             | 8.3           | -1.4          | 8.5               | 280.            |



UTAH UAU8

ELEV 1585 METERS

SOUNDING ID 3971

DATE 01/29/77

TIME 07:24MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -11.65        |            | 0.0         |              | 2.6       | 90.       |
| 1.0         | 150               | 1735              | -6.15         | 5.51       | 9.05        | 11.98        | 1.7       | 115.      |
| 2.0         | 300               | 1885              | -2.25         | 3.89       | 4.77        | 7.69         | 1.8       | 44.       |
| 2.7         | 415.              | 2000.             | -1.28         | 0.97       | -0.57       | 2.36         | 4.1       | 199.      |
| 3.3         | 500               | 2085              | -1.85         | -0.57      | -3.42       | -0.50        | 4.9       | 237.      |
| 6.0         | 915.              | 2500.             | -2.73         | -0.88      | 1.91        | 4.83         | 7.3       | 275.      |
| 9.2         | 1415.             | 3000.             | -1.57         | 1.45       | -2.28       | 0.65         | 5.9       | 303.      |
| 15.8        | 2415.             | 4000.             | -9.37         | -8.09      | -2.33       | 0.60         |           |           |
| 22.3        | 3415.             | 5000.             | -15.04        | -5.66      | -3.35       | -0.42        |           |           |
| 27.6        | 4415.             | 6000.             | -23.10        | -8.06      | -3.60       | -0.67        |           |           |

UTAH UAU8

ELEV 1585 METERS

SOUNDING ID 3971

DATE 01/29/77

TIME 07:24MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | -2.6          | -0.0          | 2.6               | 90.             |
| 0.5         | 76.               | 1661.             | -1.6          | 3.2           | 3.6               | 153.            |
| 1.0         | 152.              | 1737.             | -1.5          | 0.7           | 1.6               | 114.            |
| 1.5         | 229.              | 1814.             | -1.8          | -2.3          | 2.9               | 38.             |
| 2.0         | 305.              | 1890.             | -1.2          | -1.3          | 1.8               | 45.             |
| 2.5         | 381.              | 1966.             | -0.3          | 3.5           | 3.5               | 175.            |
| 3.0         | 457.              | 2042.             | 3.6           | 3.2           | 4.8               | 229.            |
| 3.5         | 533.              | 2118.             | 4.5           | 2.2           | 5.0               | 244.            |
| 4.0         | 615.              | 2200.             | 4.5           | 2.5           | 5.1               | 243.            |
| 4.5         | 692.              | 2277.             | 4.6           | 2.2           | 5.1               | 244.            |
| 5.0         | 768.              | 2353.             | 4.4           | 2.1           | 4.9               | 244.            |
| 5.5         | 844.              | 2429.             | 5.4           | 0.9           | 5.5               | 260.            |
| 6.0         | 920.              | 2505.             | 7.4           | -0.8          | 7.4               | 277.            |
| 6.5         | 997.              | 2582.             | 8.8           | -1.6          | 8.9               | 281.            |
| 7.0         | 1073.             | 2658.             | 9.5           | -1.7          | 9.7               | 280.            |
| 7.5         | 1149.             | 2734.             | 8.5           | -1.5          | 8.7               | 280.            |
| 8.0         | 1225.             | 2810.             | 7.6           | -0.4          | 7.6               | 273.            |
| 8.5         | 1301.             | 2886.             | 7.7           | -1.3          | 7.8               | 280.            |
| 9.0         | 1378.             | 2963.             | 5.1           | -2.6          | 5.7               | 298.            |
| 9.5         | 1454.             | 3039.             | 4.7           | -3.8          | 6.1               | 309.            |
| 10.0        | 1530.             | 3115.             | 5.3           | -3.4          | 6.2               | 303.            |
| 10.5        | 1606.             | 3191.             | 5.6           | -3.0          | 6.4               | 298.            |
| 11.0        | 1682.             | 3267.             | 5.7           | -2.7          | 6.3               | 296.            |
| 11.5        | 1759.             | 3344.             | 5.4           | -2.7          | 6.1               | 296.            |
| 12.0        | 1836.             | 3421.             | 5.1           | -2.5          | 5.7               | 296.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3962

DATE 01/29/77

TIME 13:57MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | 5.58          |            | 0.0         |              | 2.6       | 270.      |
| 1.0         | 150               | 1735              | 4.83          | -0.75      | -0.93       | 2.00         | 2.6       | 247.      |
| 2.0         | 300               | 1885              | 4.07          | -0.75      | -1.49       | 1.44         | 1.7       | 263.      |
| 2.7         | 415.              | 2000.             | 2.93          | -0.76      | -2.43       | 0.50         | 1.2       | 246.      |
| 3.3         | 500.              | 2085.             | 2.47          | -0.84      | -1.69       | 1.24         | 0.8       | 226.      |
| 6.0         | 915.              | 2500.             | 1.31          | -1.16      | -0.75       | 2.18         | 4.5       | 14.       |
| 9.3         | 1415.             | 3000.             | 0.07          | -1.25      | -3.97       | -1.05        | 8.5       | 334.      |
| 15.0        | 2415.             | 4000.             | -9.08         | -9.15      | -3.49       | -0.56        |           |           |
| 21.4        | 3415.             | 5000.             | -16.54        | -7.46      | -0.59       | 2.34         |           |           |
| 27.0        | 4415.             | 6000.             | -23.92        | -7.37      | -2.00       | 0.93         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3962

DATE 01/29/77

TIME 13:57MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | 2.6           | 0.0           | 2.6               | 270.            |
| 0.5         | 76.               | 1661.             | 2.7           | 1.5           | 3.0               | 241.            |
| 1.0         | 152.              | 1737.             | 2.4           | 1.0           | 2.6               | 247.            |
| 1.5         | 229.              | 1814.             | 1.9           | -0.1          | 1.9               | 272.            |
| 2.0         | 305.              | 1890.             | 1.7           | 0.2           | 1.7               | 263.            |
| 2.5         | 381.              | 1966.             | 1.2           | 0.4           | 1.3               | 251.            |
| 3.0         | 457.              | 2042.             | 0.8           | 0.5           | 1.0               | 239.            |
| 3.5         | 533.              | 2118.             | 0.4           | 0.5           | 0.6               | 216.            |
| 4.0         | 610.              | 2195.             | 1.2           | 0.5           | 1.3               | 247.            |
| 4.5         | 686.              | 2271.             | 2.8           | -0.4          | 2.8               | 279.            |
| 5.0         | 762.              | 2347.             | 1.7           | -1.8          | 2.5               | 318.            |
| 5.5         | 838.              | 2423.             | -1.6          | -2.7          | 3.2               | 31.             |
| 6.0         | 914.              | 2499.             | -1.1          | -4.4          | 4.5               | 14.             |
| 6.5         | 991.              | 2576.             | -10.4         | -4.3          | 4.3               | 6.              |
| 7.0         | 1067.             | 2652.             | -10.2         | -5.4          | 5.4               | 2.              |
| 7.5         | 1143.             | 2728.             | -2.3          | -7.4          | 7.7               | 343.            |
| 8.0         | 1219.             | 2804.             | -2.9          | -8.3          | 8.8               | 341.            |
| 8.5         | 1295.             | 2880.             | -3.1          | -8.1          | 8.6               | 339.            |
| 9.0         | 1372.             | 2957.             | -3.5          | -7.6          | 8.3               | 335.            |
| 9.5         | 1448.             | 3033.             | -3.9          | -7.7          | 8.6               | 333.            |
| 10.0        | 1551.             | 3136.             | -4.7          | -8.3          | 9.5               | 330.            |
| 10.5        | 1657.             | 3242.             | -4.8          | -7.8          | 9.2               | 329.            |
| 11.0        | 1734.             | 3319.             | -3.7          | -6.6          | 7.6               | 331.            |
| 11.5        | 1810.             | 3395.             | -3.4          | -5.5          | 6.5               | 328.            |
| 12.0        | 1886.             | 3471.             | -3.6          | -4.2          | 5.5               | 320.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3965

DATE 01/31/77

TIME 07:15MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | -9.87         |            | 0.0         |              | 1.5       | 135.      |
| 1.0         | ? 150             | 1735              | -6.43         | 3.44       | 1.93        | 4.85         | 0.6       | 141.      |
| 2.0         | ? 300             | 1885              | -5.06         | 1.37       | 2.49        | 5.42         | 0.4       | 74.       |
| 2.7         | 415.              | ?2000.            | -4.09         | 0.97       | 1.91        | 4.84         | 1.3       | 183.      |
| 3.3         | ? 500             | 2085              | -3.52         | 0.57       | 2.29        | 5.22         | 3.0       | 221.      |
| 5.8         | * 876             | 2461              | -0.32         |            | 0.0         | 2.93         |           |           |
| 6.0         | 915.              | 2500.             | -1.28         | 2.44       | -2.28       | 0.65         | 3.5       | 239.      |
| 9.3         | 1415.             | 3000.             | -1.09         | -0.01      | 0.0         | 2.93         | 1.9       | 286.      |
| 15.8        | 2415.             | 4000.             | -6.72         | -5.63      | -0.77       | 2.16         |           |           |
| 22.3        | 3415.             | 5000.             | -10.66        | -3.94      | -3.31       | -0.38        |           |           |
| 28.8        | 4415.             | 6000.             | -16.84        | -6.18      | -1.19       | 1.74         |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3965

DATE 01/31/77

TIME 07:15MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | -1.1          | 1.1           | 1.5               | 135.            |
| 0.5         | 76.               | 1661.             | -0.1          | 1.2           | 1.2               | 175.            |
| 1.0         | 152.              | 1737.             | -0.4          | 0.5           | 0.6               | 140.            |
| 1.5         | 229.              | 1814.             | -0.8          | 0.1           | 0.8               | 100.            |
| 2.0         | 305.              | 1890.             | -0.4          | -0.1          | 0.4               | 72.             |
| 2.5         | 381.              | 1966.             | -0.3          | 0.9           | 0.9               | 163.            |
| 3.0         | 457.              | 2042.             | 0.8           | 1.6           | 1.8               | 207.            |
| 3.5         | 533.              | 2118.             | 3.1           | 2.4           | 3.9               | 232.            |
| 4.0         | 610.              | 2195.             | 1.1           | 3.5           | 3.6               | 197.            |
| 4.5         | 686.              | 2271.             | 0.5           | 2.9           | 2.9               | 189.            |
| 5.0         | 762.              | 2347.             | 0.7           | 3.7           | 3.8               | 191.            |
| 5.5         | 838.              | 2423.             | 2.4           | 2.8           | 3.7               | 221.            |
| 6.0         | 914.              | 2499.             | 3.0           | 1.8           | 3.5               | 239.            |
| 6.5         | 991.              | 2576.             | 4.2           | 0.9           | 4.3               | 258.            |
| 7.0         | 1067.             | 2652.             | 6.3           | 0.2           | 6.3               | 268.            |
| 7.5         | 1143.             | 2728.             | 4.5           | -1.4          | 4.8               | 287.            |
| 8.0         | 1220.             | 2805.             | 2.9           | -1.3          | 3.2               | 293.            |
| 8.5         | 1296.             | 2881.             | 2.4           | -0.3          | 2.4               | 278.            |
| 9.0         | 1372.             | 2957.             | 2.0           | -0.6          | 2.1               | 288.            |
| 9.5         | 1448.             | 3033.             | 1.6           | -0.4          | 1.7               | 285.            |
| 10.0        | 1524.             | 3109.             | 1.8           | -1.0          | 2.0               | 299.            |
| 10.5        | 1601.             | 3186.             | 1.7           | -2.0          | 2.6               | 320.            |
| 11.0        | 1677.             | 3262.             | 2.1           | -2.7          | 3.4               | 322.            |
| 11.5        | 1753.             | 3338.             | 2.6           | -2.7          | 3.7               | 316.            |
| 12.0        | 1832.             | 3417.             | 3.3           | -2.6          | 4.2               | 309.            |



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3968

DATE 01/31/77

TIME 13:55MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | TEMP<br>DEG C | D/T<br>STD | D/T<br>300M | D/T<br>LAPSE | WS<br>M/S | WD<br>DEG |
|-------------|-------------------|-------------------|---------------|------------|-------------|--------------|-----------|-----------|
|             | SFC               |                   | 7.65          |            | 0.0         |              | 2.6       | 315.      |
| 0.8         | 150               | 1735              | 5.02          | -2.63      | -2.04       | 0.88         | 3.6       | 304.      |
| 1.7         | 300               | 1885              | 4.17          | -0.85      | -0.37       | 2.56         | 1.9       | 20.       |
| 2.4         | 415.              | 2000.             | 4.17          | 0.00       | -1.49       | 1.44         | 3.4       | 19.       |
| 3.0         | 500               | 2085.             | 3.88          | -0.29      | -1.87       | 1.06         | 3.0       | 40.       |
| 3.5         | * 577             | 2162              | 3.22          |            | 1.86        | 4.79         |           |           |
| 4.5         | * 729             | 2314              | 5.77          |            | 0.56        | 3.49         |           |           |
| 5.7         | 915.              | 2500.             | 3.88          | 0.29       | -2.24       | 0.69         | 4.2       | 190.      |
| 8.9         | 1415.             | 3000.             | 1.79          | -2.38      | -0.38       | 2.55         | 4.9       | 253.      |
| 15.3        | 2415.             | 4000.             | -1.18         | -2.97      | -0.76       | 2.17         |           |           |
| 21.8        | 3415.             | 5000.             | -6.92         | -5.73      | -3.86       | -0.93        |           |           |
| 27.7        | 4415.             | 6000.             | -14.34        | -7.42      | -2.95       | -0.02        |           |           |

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3968

DATE 01/31/77

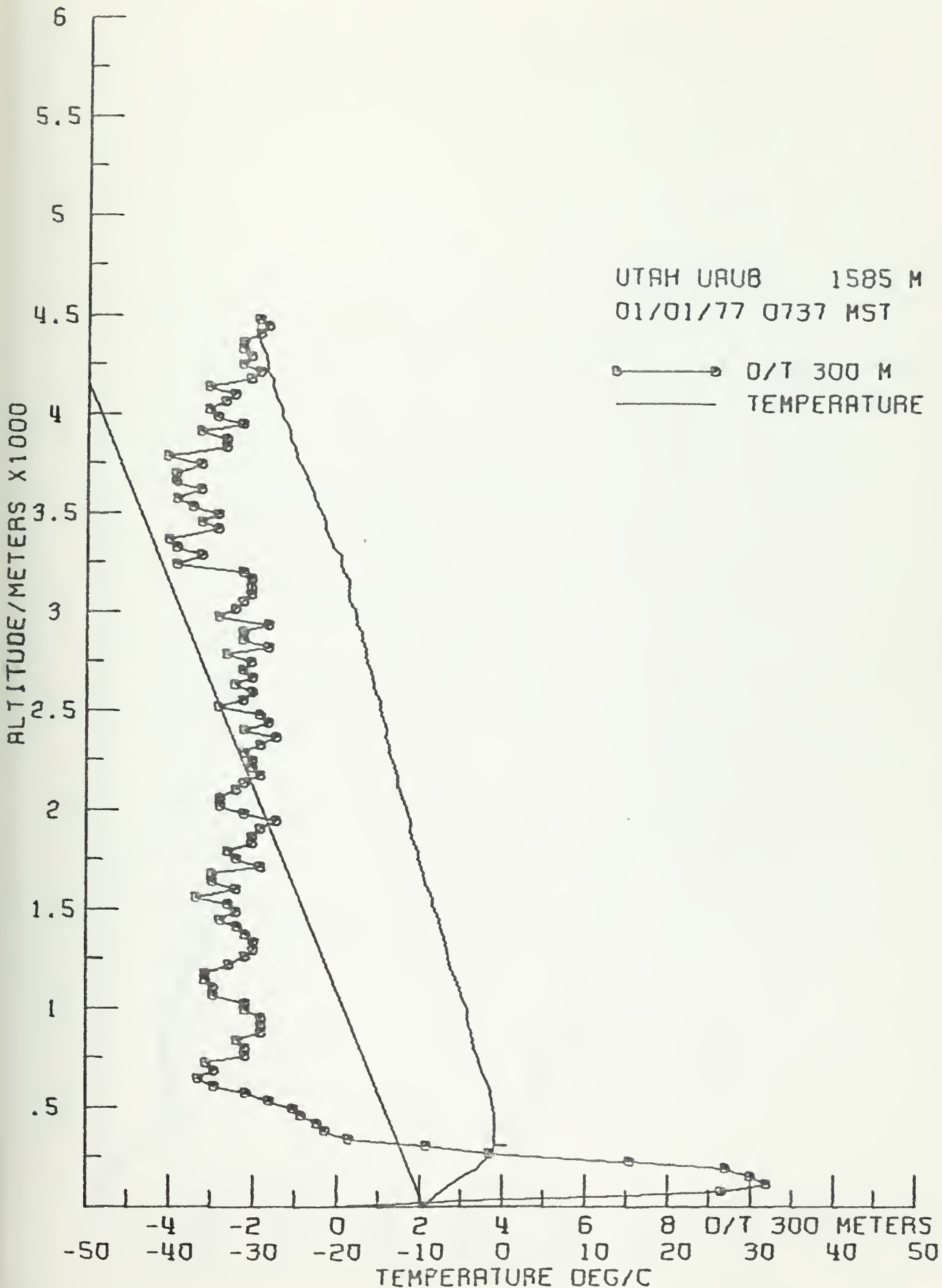
TIME 13:55MST

ASCENT RATE 500 FPM

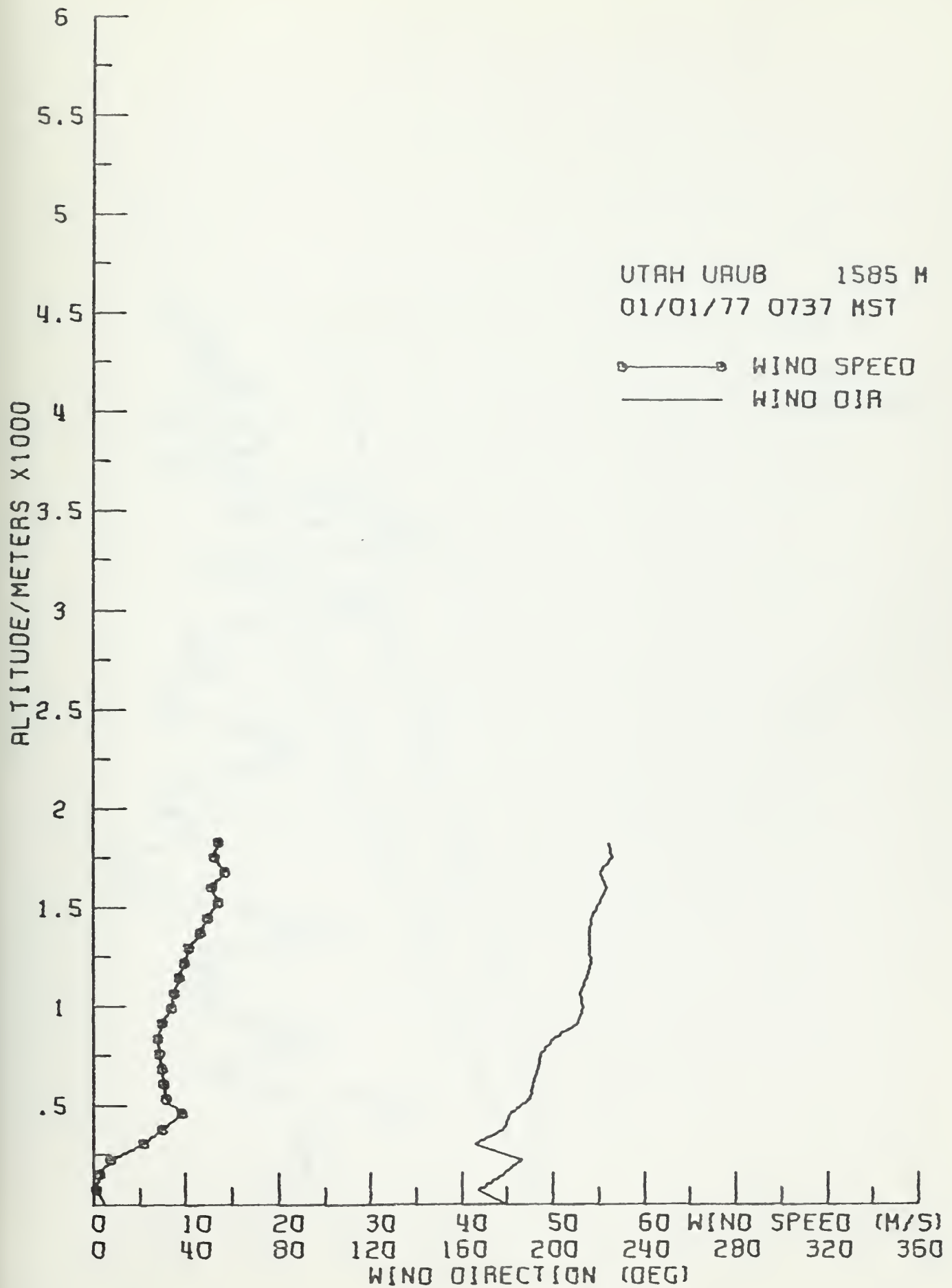
DATA INTERVAL 15 SEC.

| TIME<br>MIN | HEIGHT<br>M (AGL) | HEIGHT<br>M (MSL) | U-COMP<br>M/S | V-COMP<br>M/S | WIND SPEED<br>M/S | WIND DIR<br>DEG |
|-------------|-------------------|-------------------|---------------|---------------|-------------------|-----------------|
| 0.0         | 0.                | 1585.             | 1.8           | -1.8          | 2.6               | 315.            |
| 0.5         | 76.               | 1661.             | 2.3           | -0.3          | 2.4               | 277.            |
| 1.0         | 196.              | 1781.             | 2.9           | -3.5          | 4.4               | 321.            |
| 1.5         | 272.              | 1857.             | -0.5          | -1.5          | 1.6               | 19.             |
| 2.0         | 349.              | 1934.             | -0.9          | -2.4          | 2.6               | 21.             |
| 2.5         | 425.              | 2010.             | -1.1          | -3.4          | 3.6               | 19.             |
| 3.0         | 501.              | 2086.             | -1.9          | -2.2          | 2.9               | 41.             |
| 3.5         | 577.              | 2162.             | -1.3          | -0.6          | 1.4               | 66.             |
| 4.0         | 653.              | 2238.             | 1.2           | -2.9          | 3.1               | 337.            |
| 4.5         | 730.              | 2315.             | 2.4           | -1.8          | 2.9               | 307.            |
| 5.0         | 806.              | 2391.             | 3.5           | 0.3           | 3.5               | 265.            |
| 5.5         | 882.              | 2467.             | 0.7           | 4.0           | 4.0               | 190.            |
| 6.0         | 958.              | 2543.             | 0.8           | 4.4           | 4.5               | 190.            |
| 6.5         | 1034.             | 2619.             | 1.2           | 3.7           | 3.9               | 198.            |
| 7.0         | 1111.             | 2696.             | 2.3           | 3.7           | 4.4               | 211.            |
| 7.5         | 1199.             | 2784.             | 2.8           | 3.3           | 4.3               | 220.            |
| 8.0         | 1282.             | 2867.             | 4.1           | 2.2           | 4.6               | 242.            |
| 8.5         | 1358.             | 2943.             | 5.0           | 0.7           | 5.1               | 262.            |
| 9.0         | 1435.             | 3020.             | 4.6           | 1.6           | 4.9               | 250.            |
| 9.5         | 1511.             | 3096.             | 4.0           | 4.1           | 5.7               | 225.            |
| 10.0        | 1587.             | 3172.             | 4.2           | 5.6           | 6.9               | 217.            |
| 10.5        | 1663.             | 3248.             | 3.7           | 6.1           | 7.1               | 212.            |
| 11.0        | 1739.             | 3324.             | 3.8           | 6.6           | 7.6               | 210.            |
| 11.5        | 1828.             | 3413.             | 4.1           | 7.9           | 8.8               | 207.            |
| 12.0        | 1906.             | 3491.             | 4.7           | 7.8           | 9.1               | 211.            |

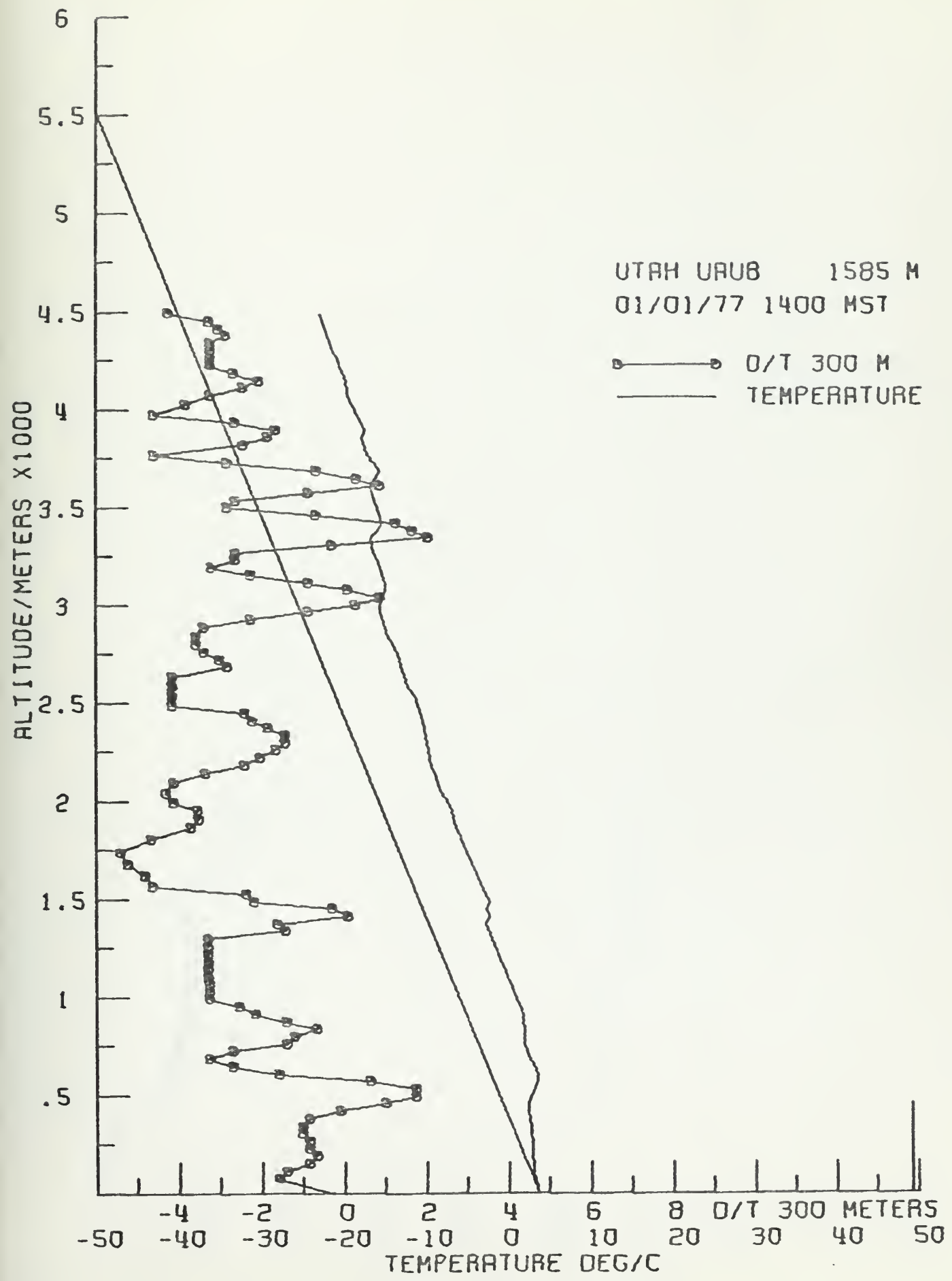








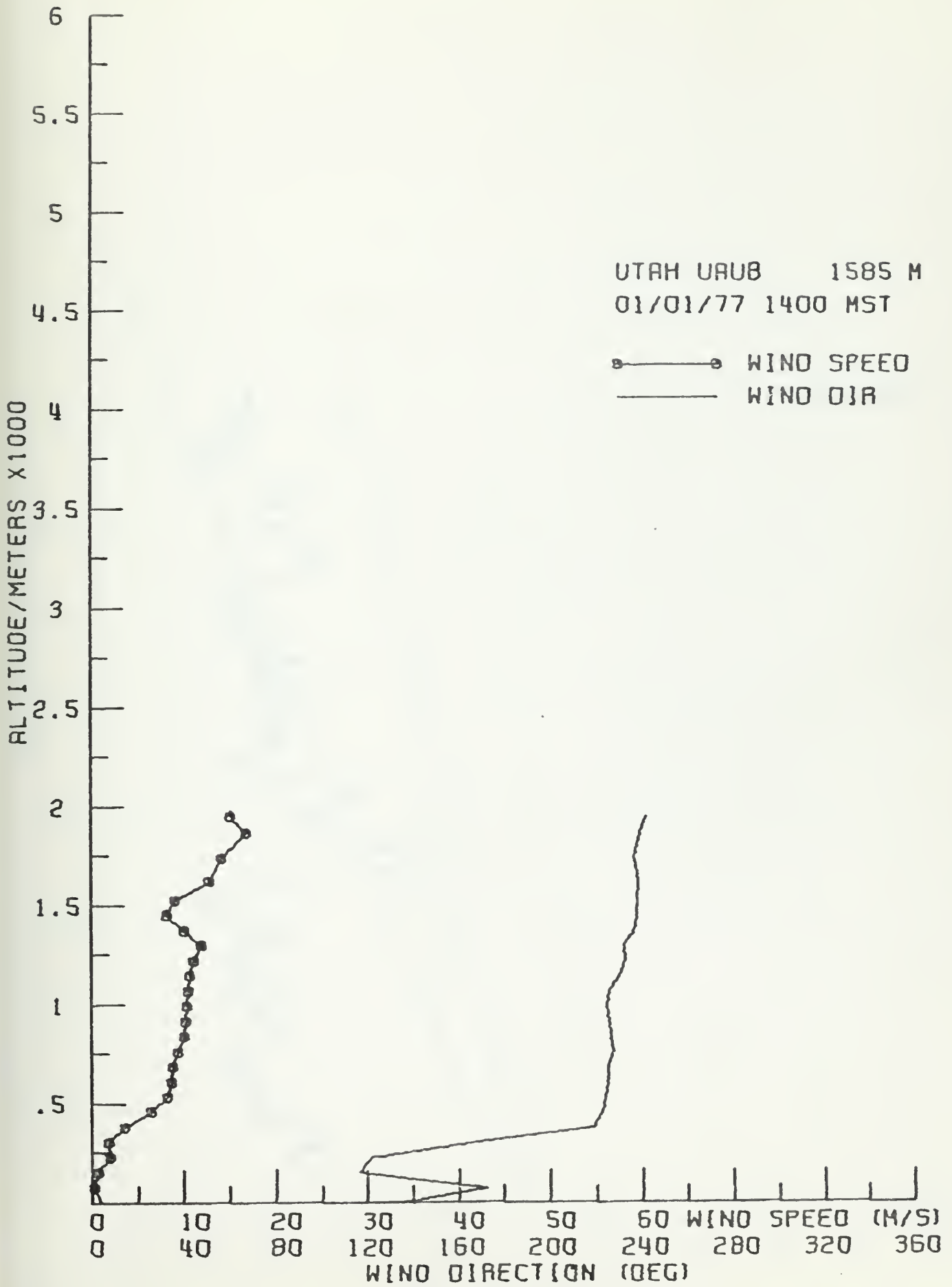




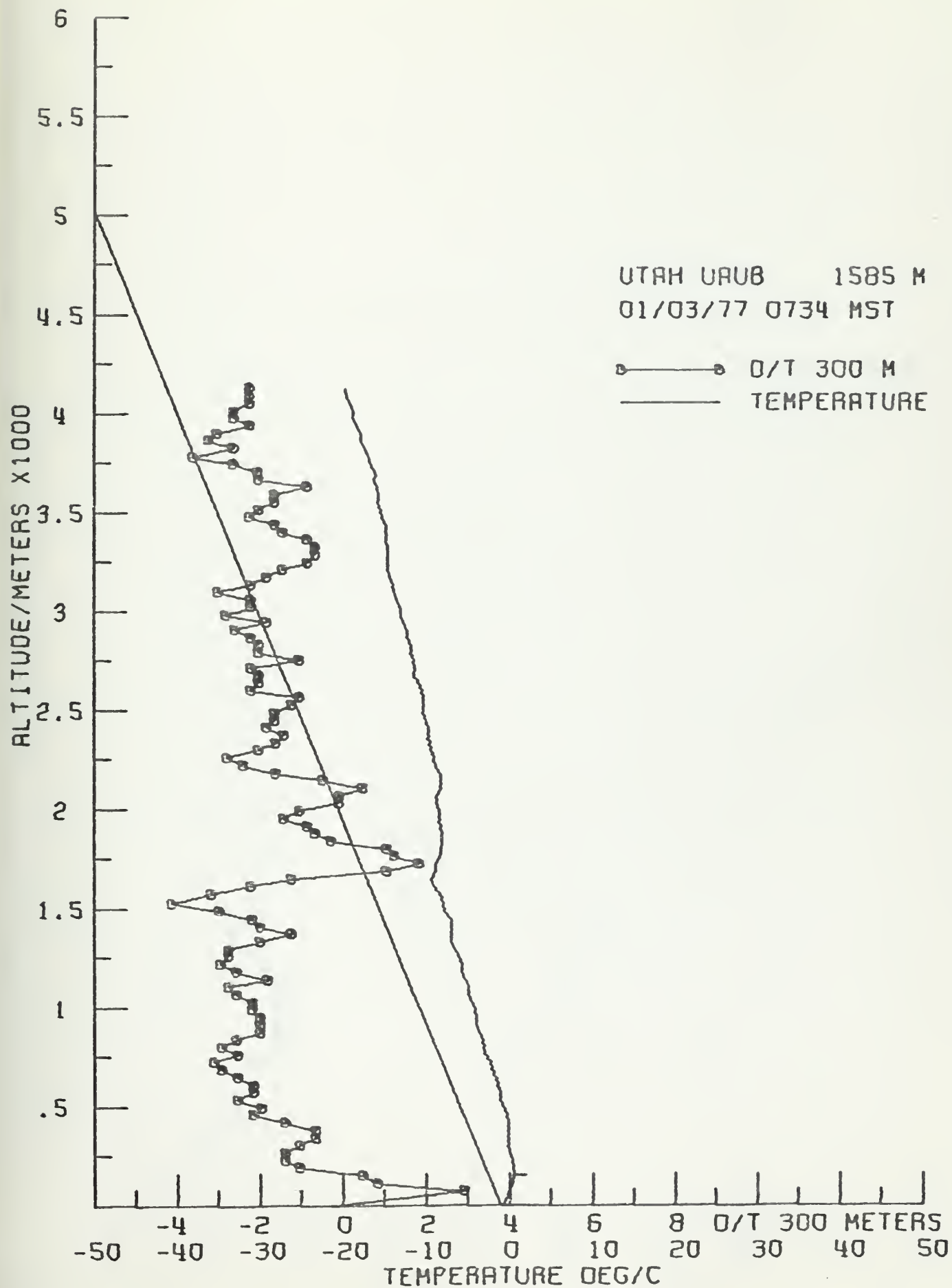
UTAH URB 1585 M  
01/01/77 1400 MST

O/T 300 M  
TEMPERATURE

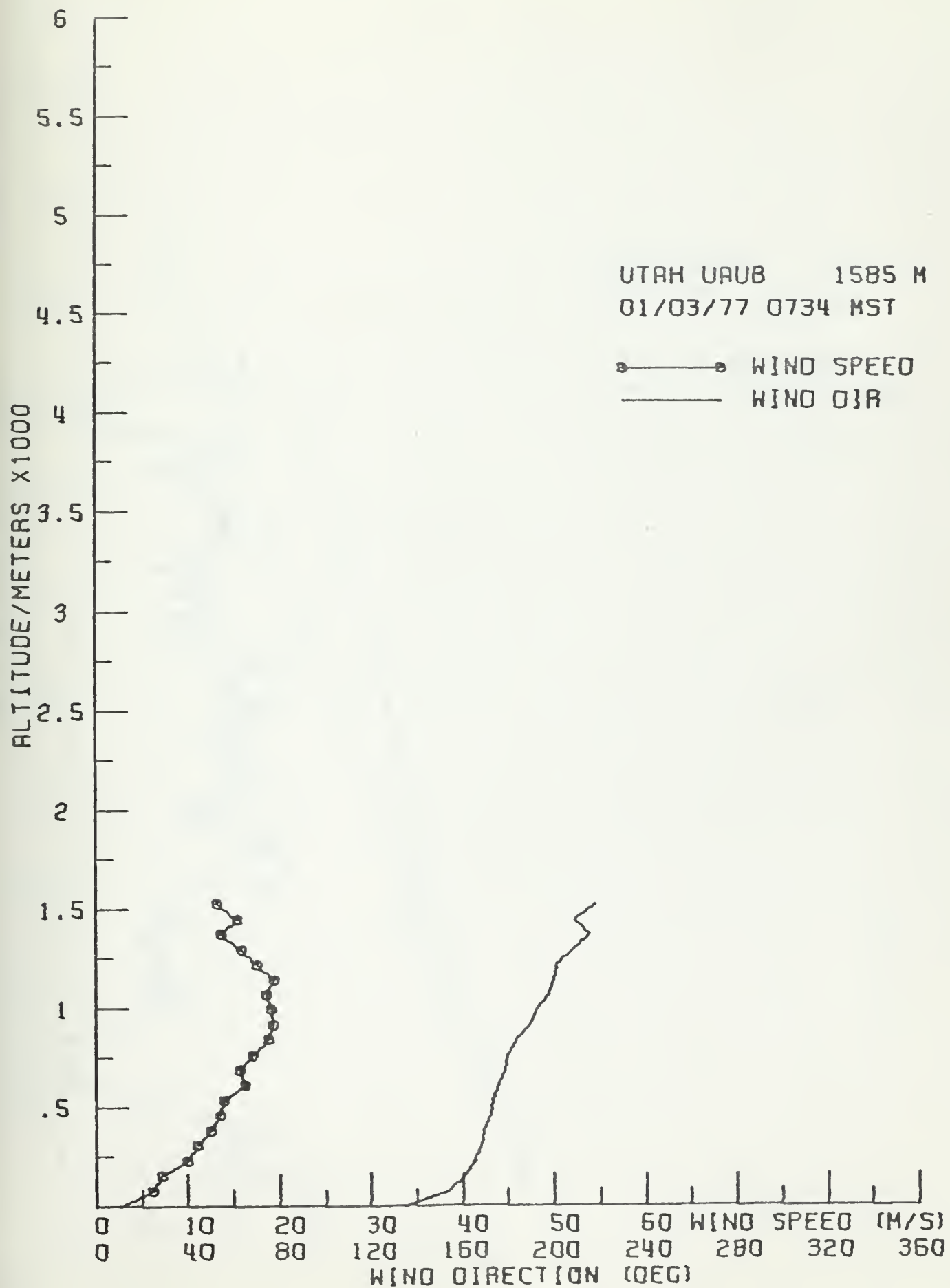




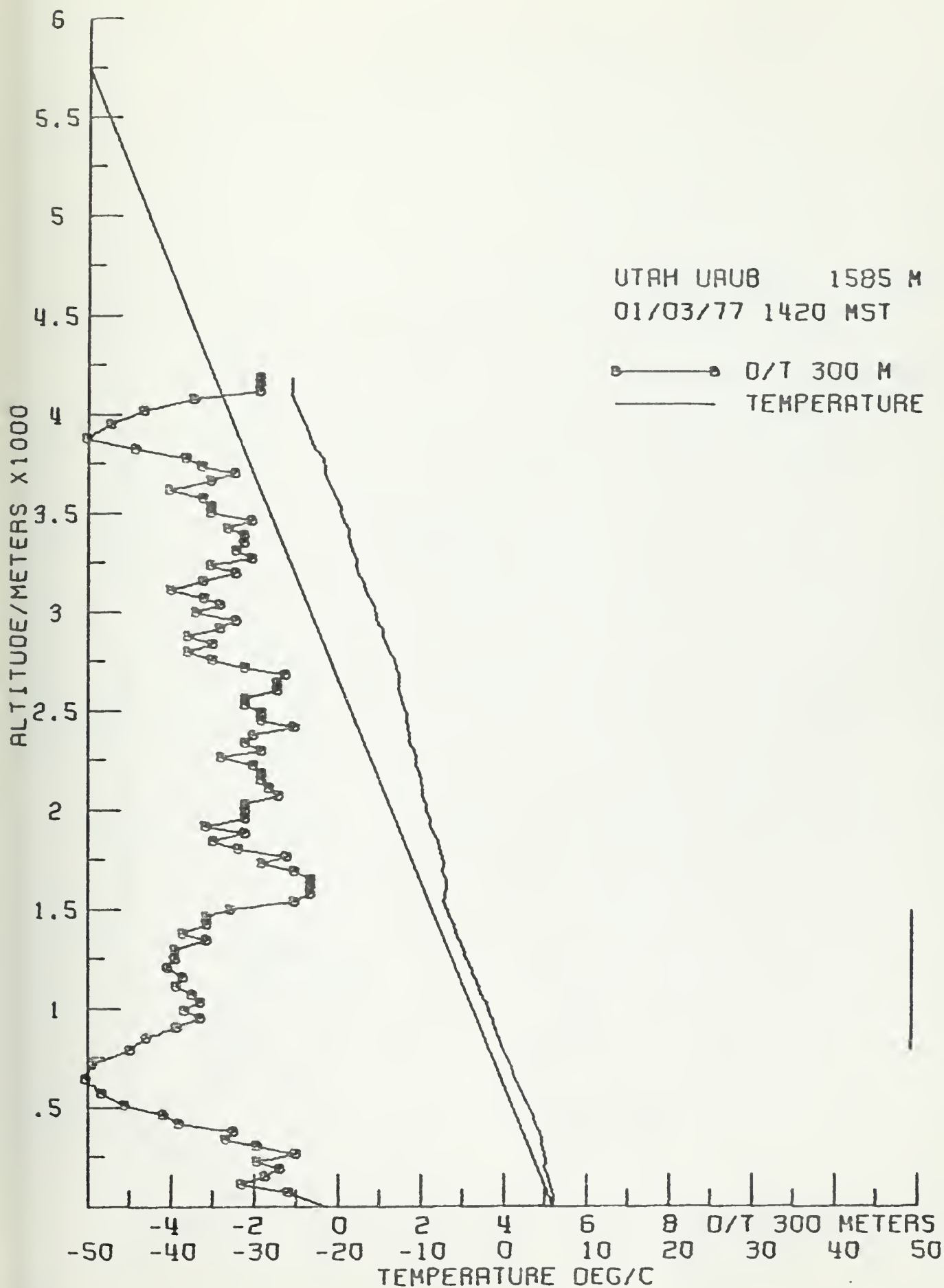




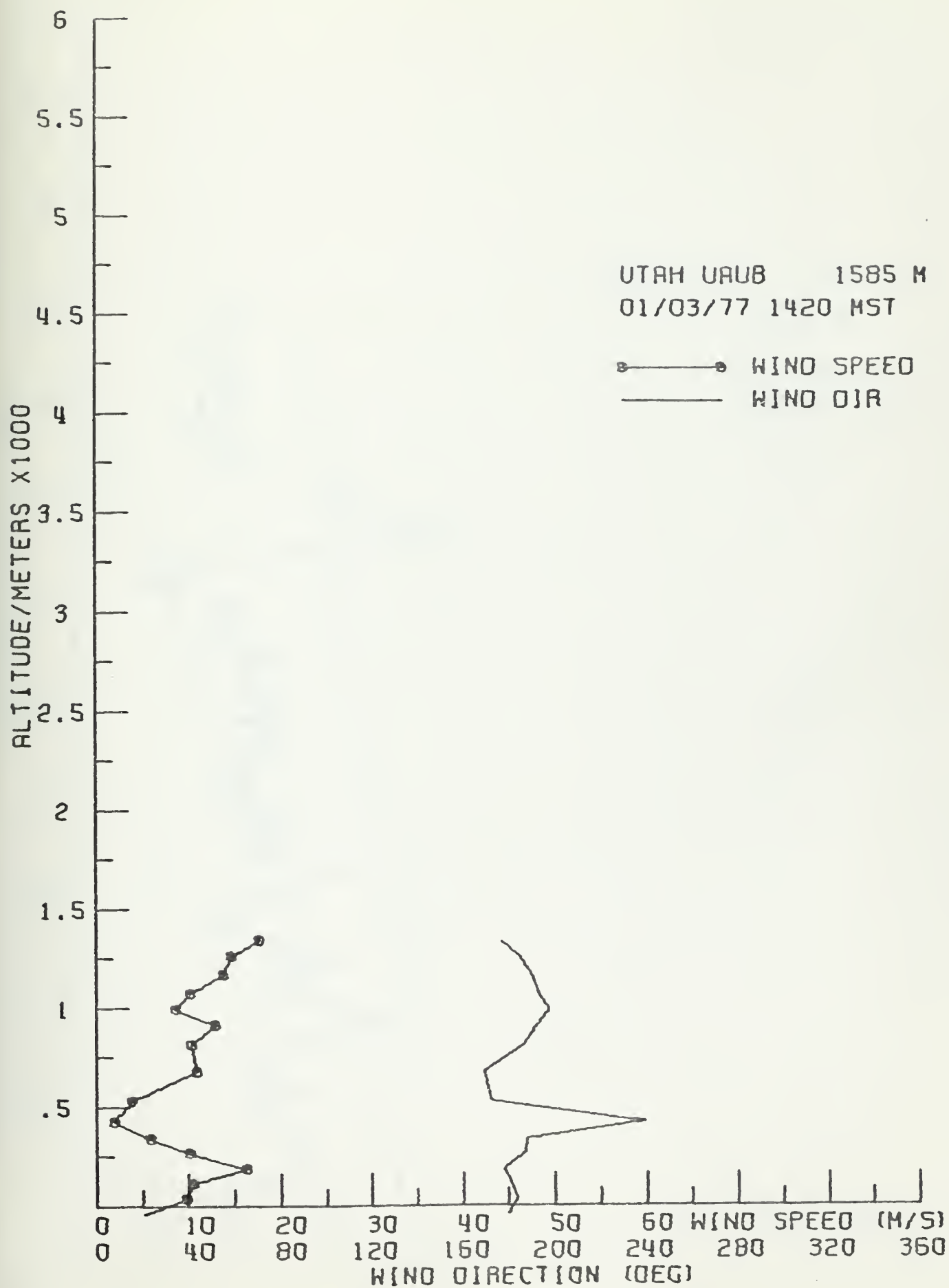




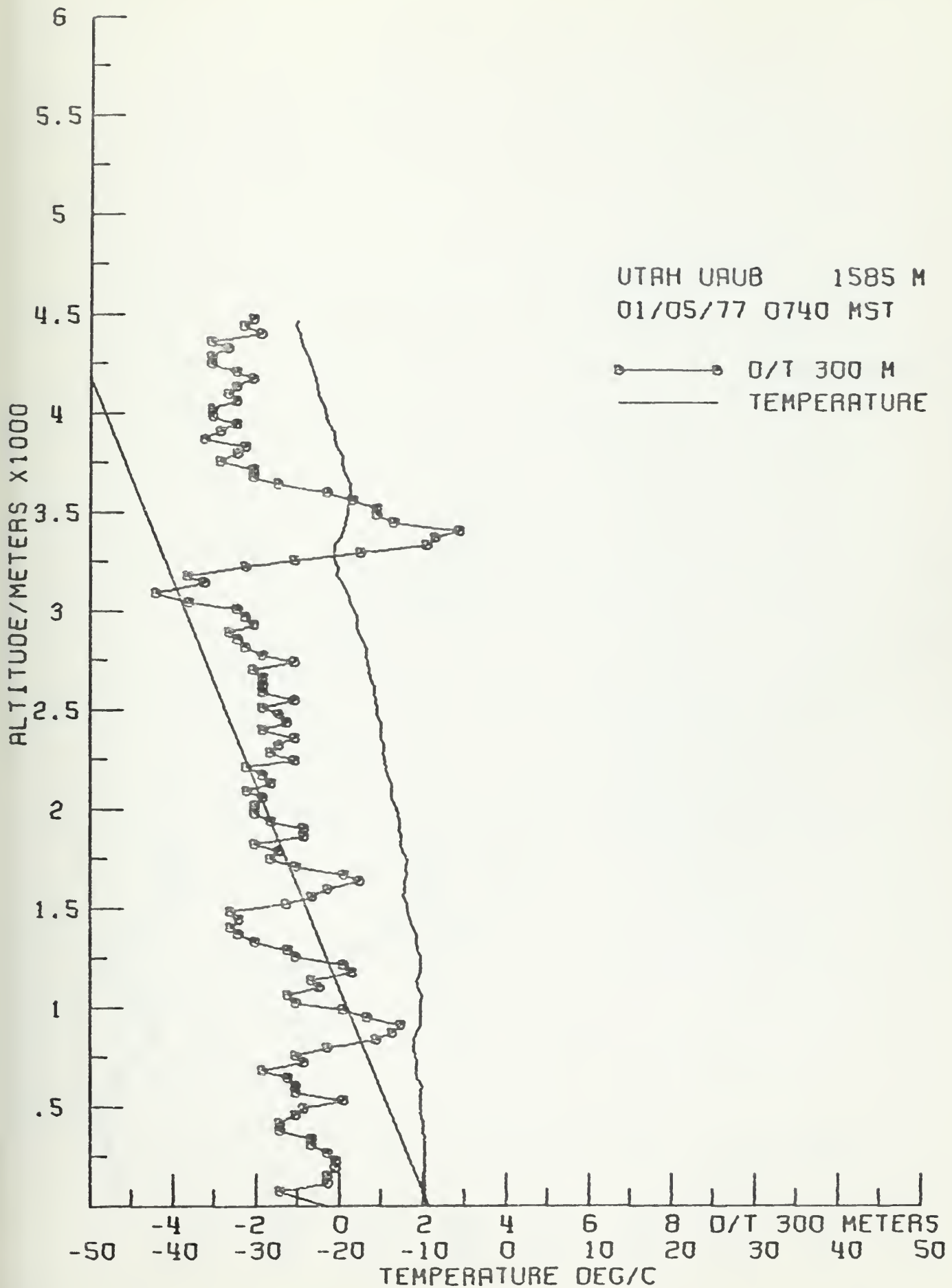






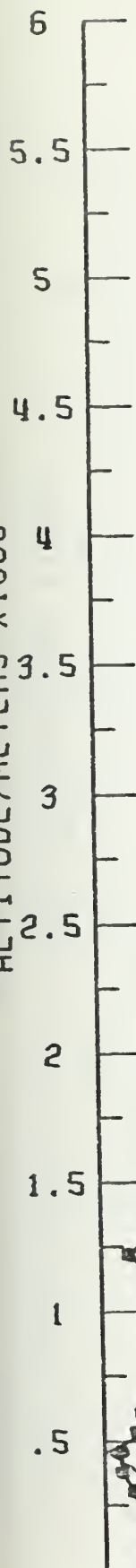






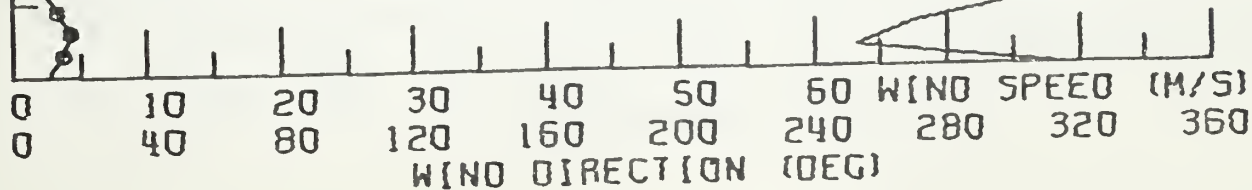


ALTITUDE/METERS X1000



UTAH UAUB 1585 M  
01/05/77 0740 MST

—○— WIND SPEED  
— WIND DIR

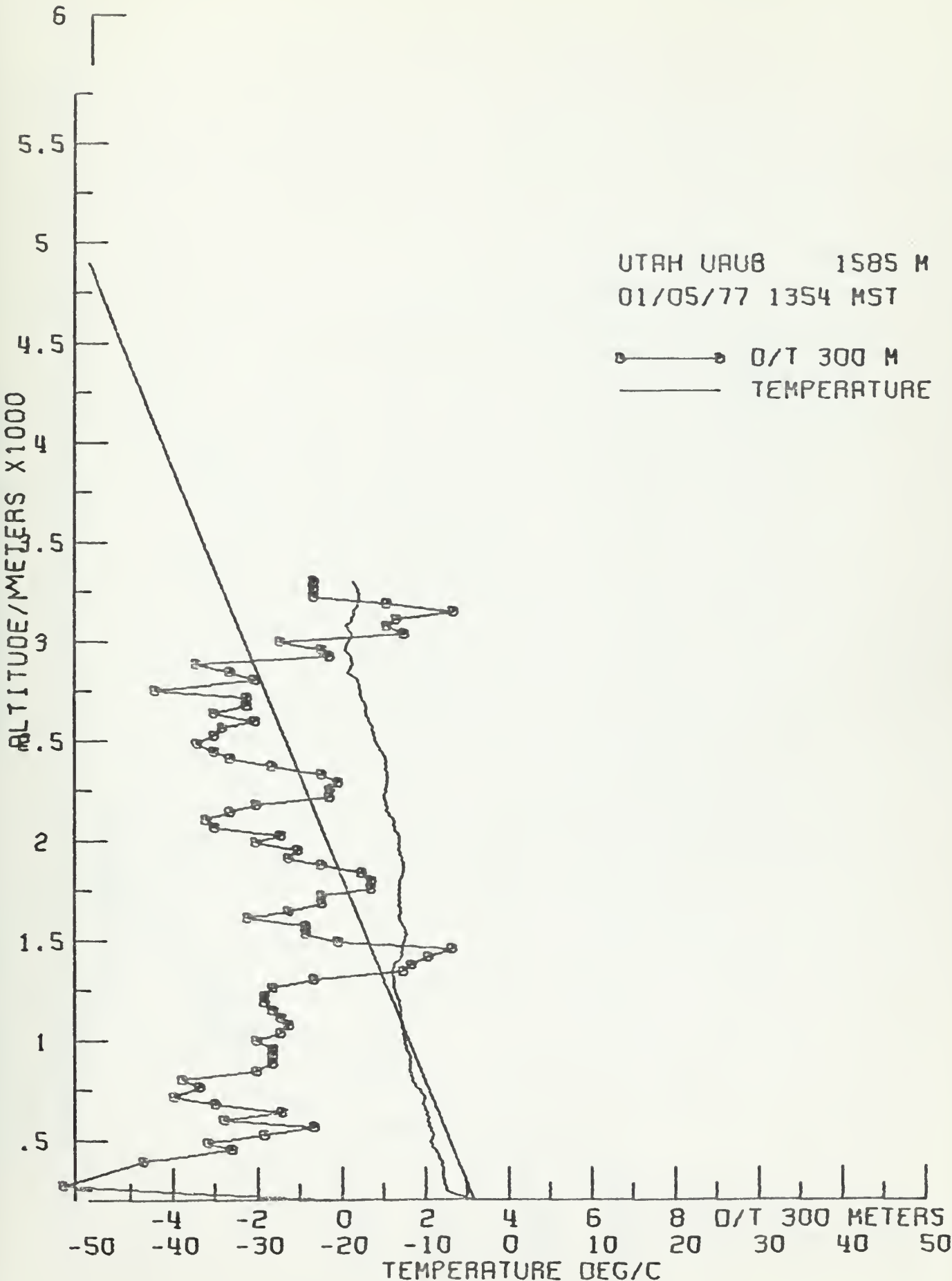




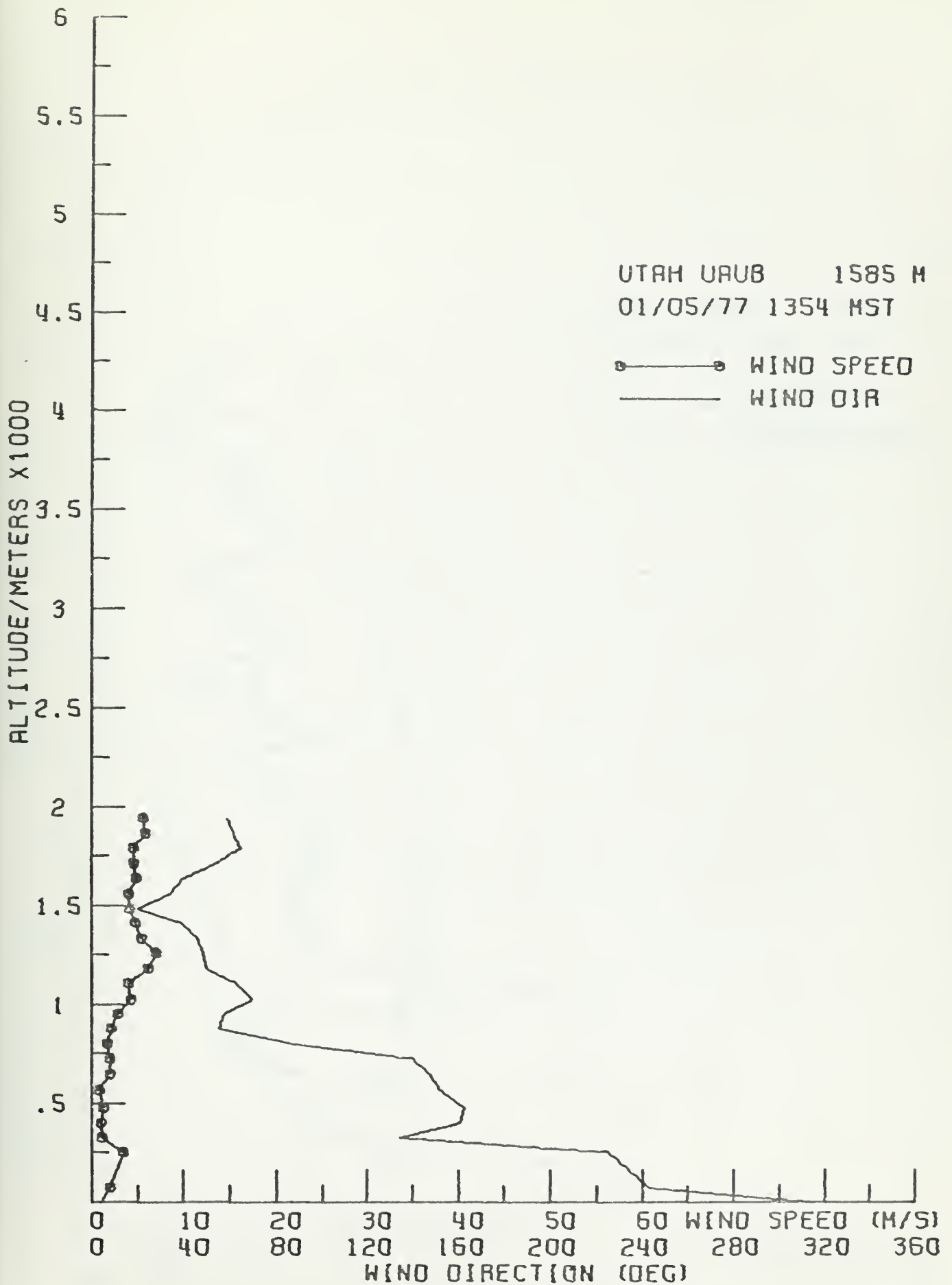
ALTITUDE/METERS X1000

UTAH UAUB 1585 M  
01/05/77 1354 MST

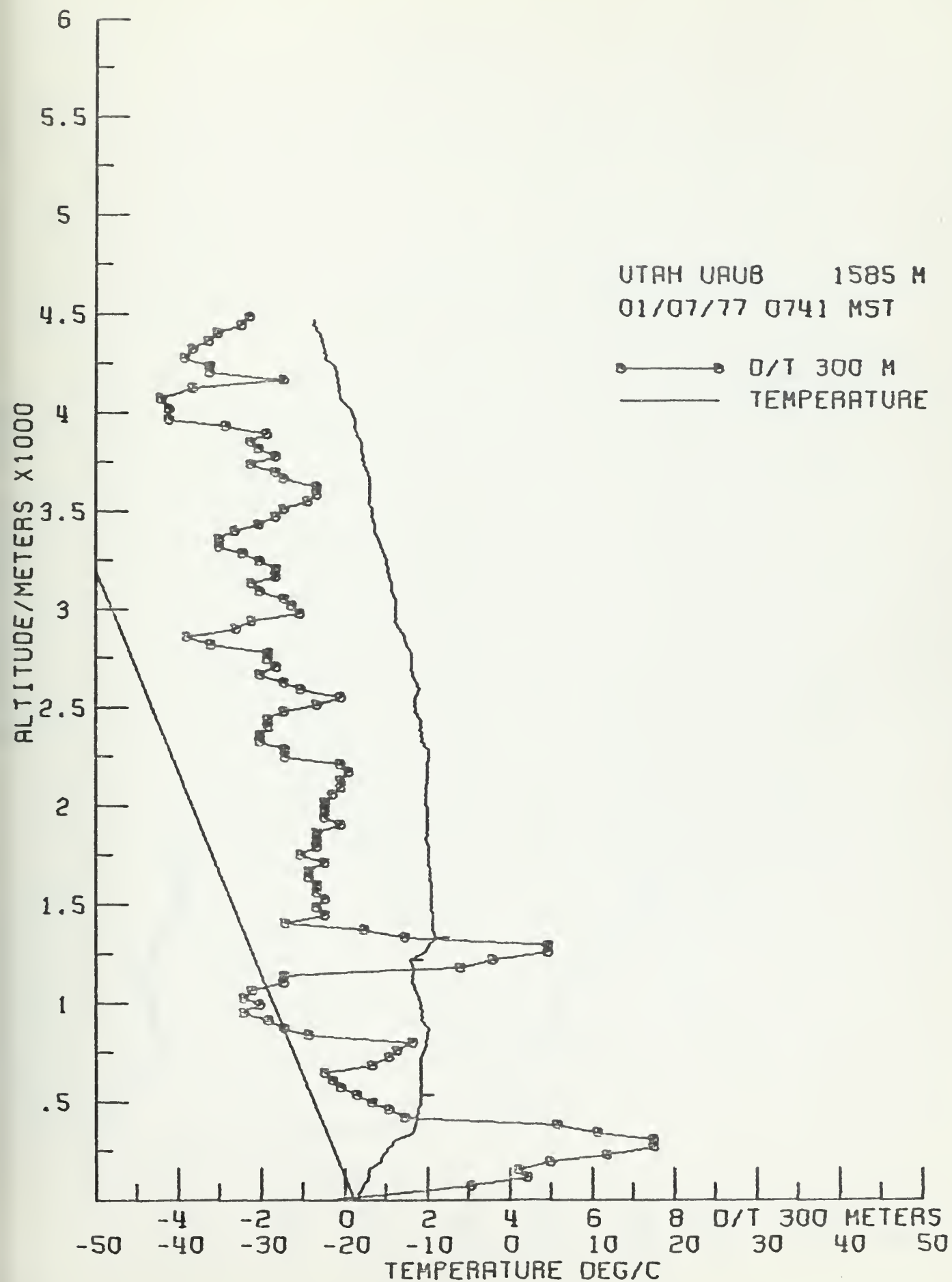
○ — ○ D/T 300 M  
— TEMPERATURE



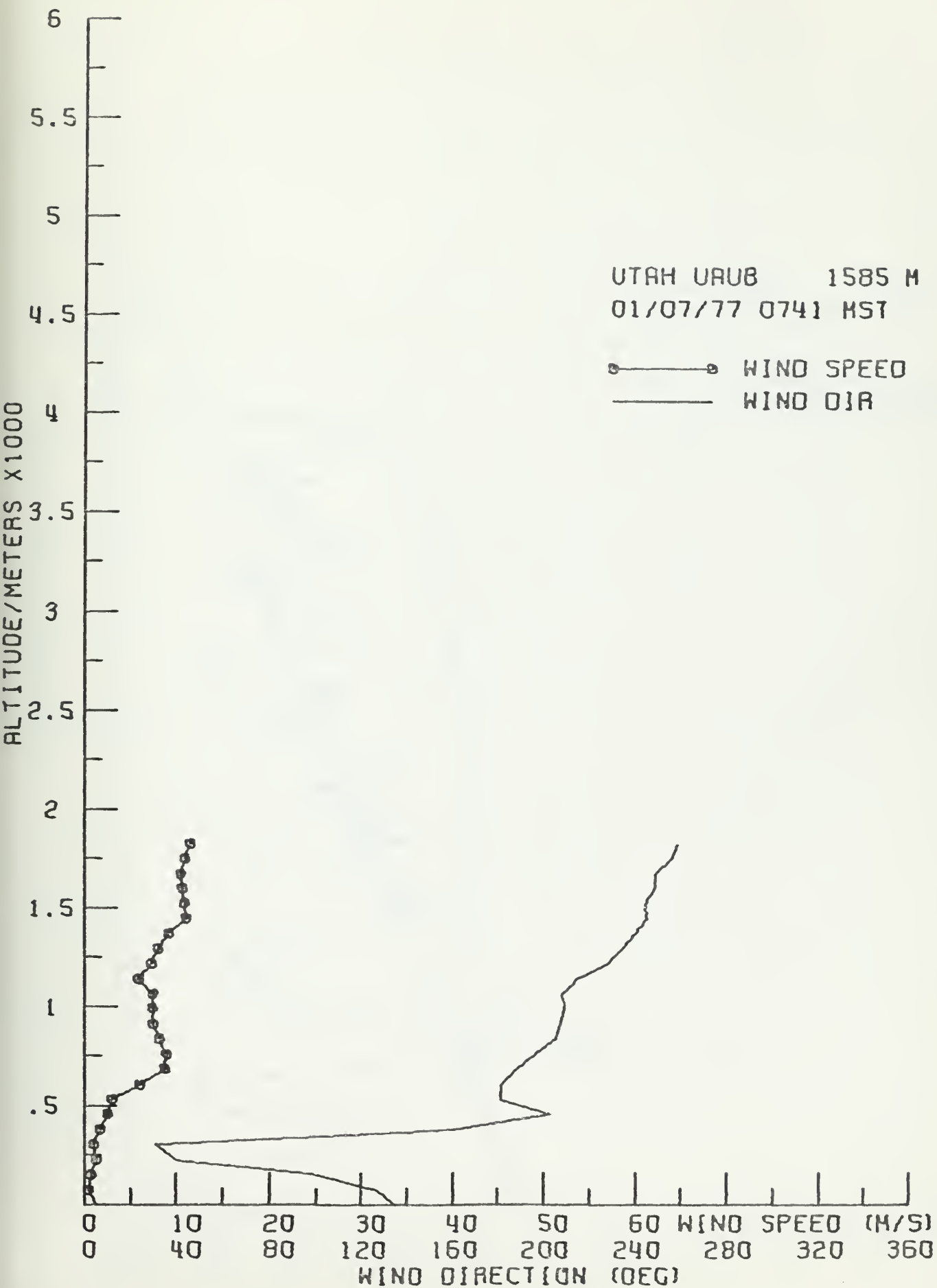




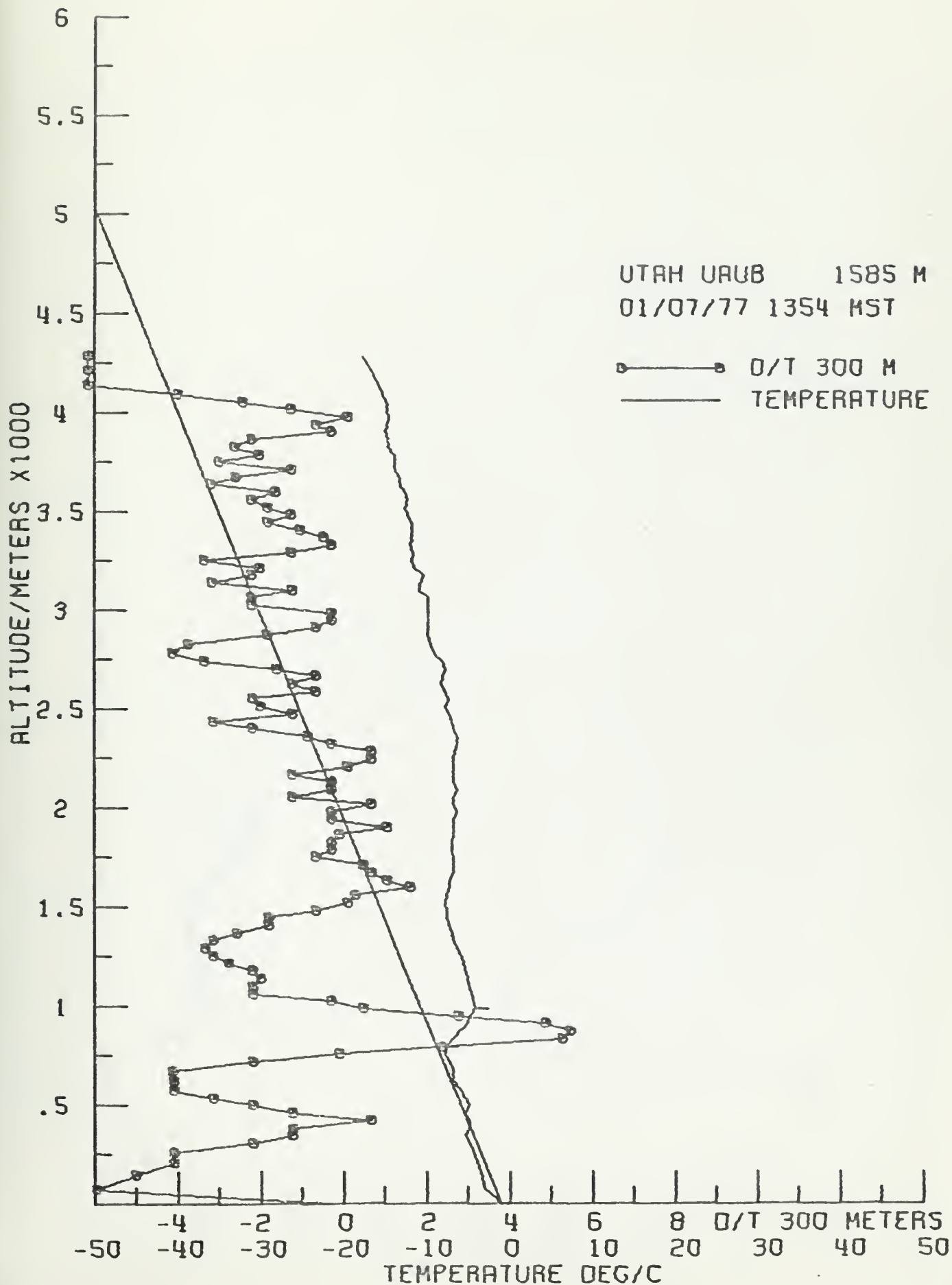




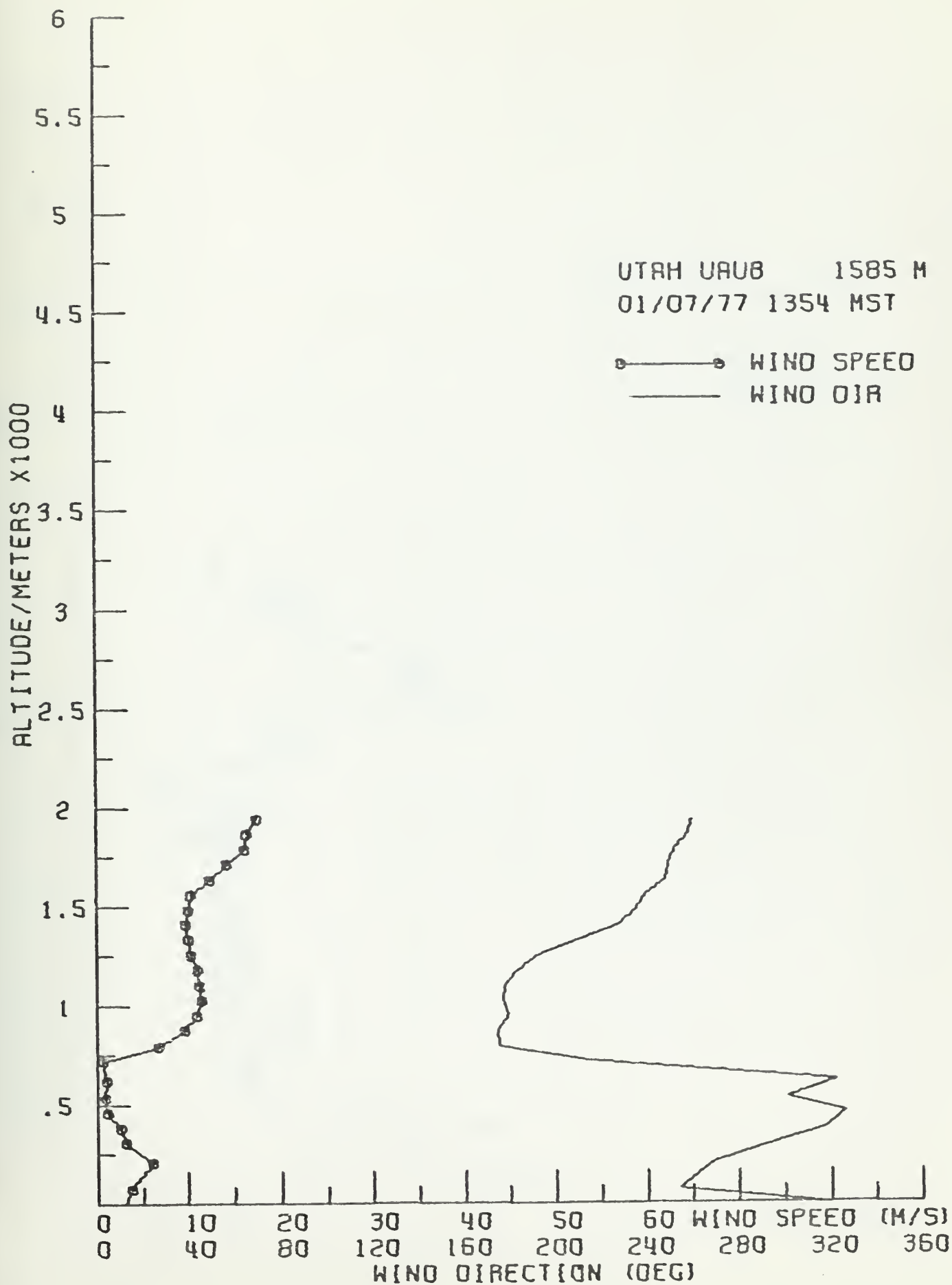






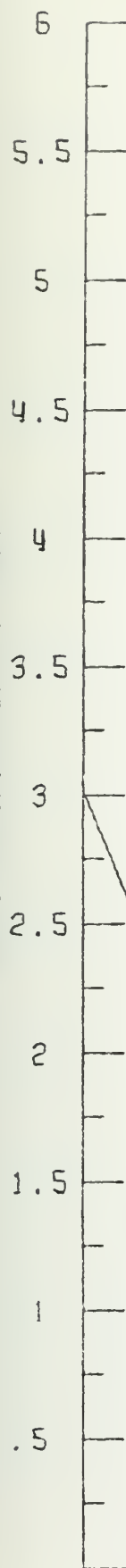






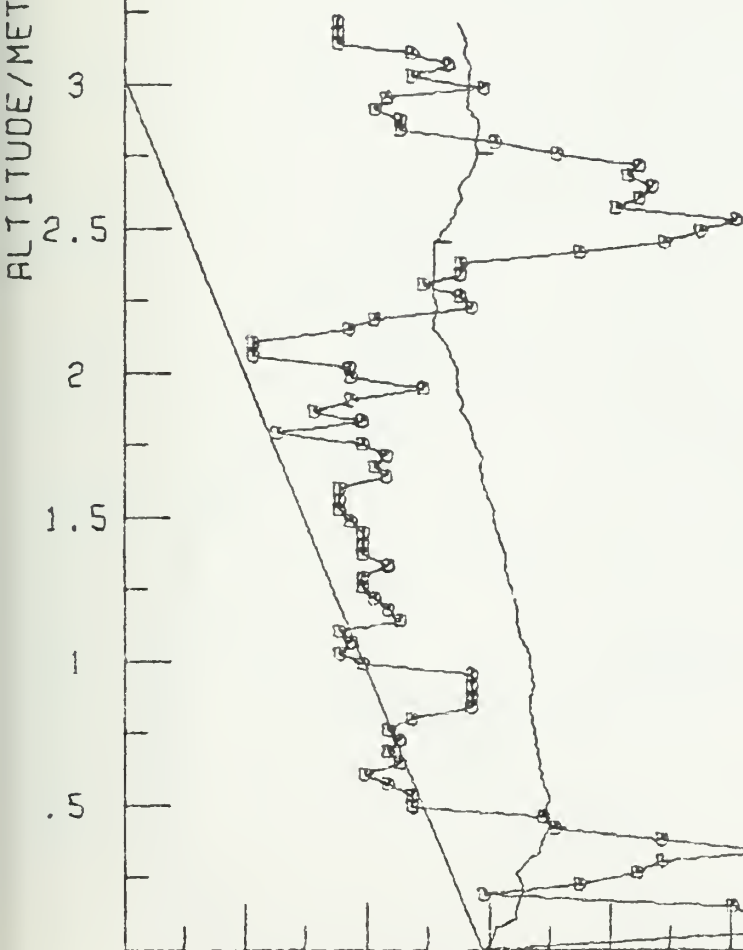
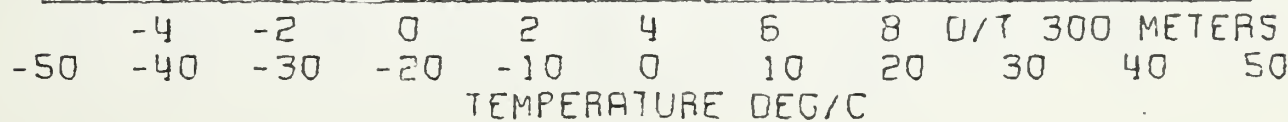


ALTITUDE/METERS X1000



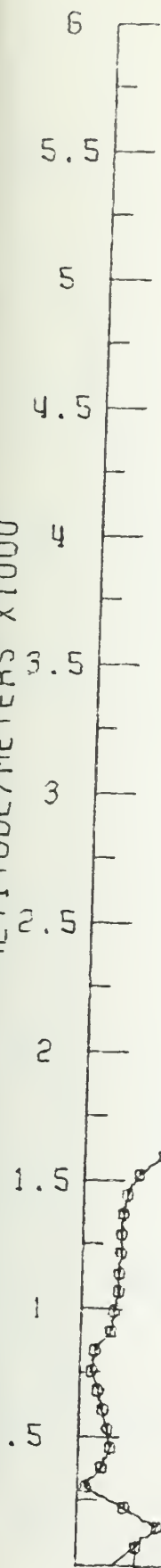
UTAH UAUB 1585 M  
01/09/77 0735 MST

□ — □ O/T 300 M  
— TEMPERATURE



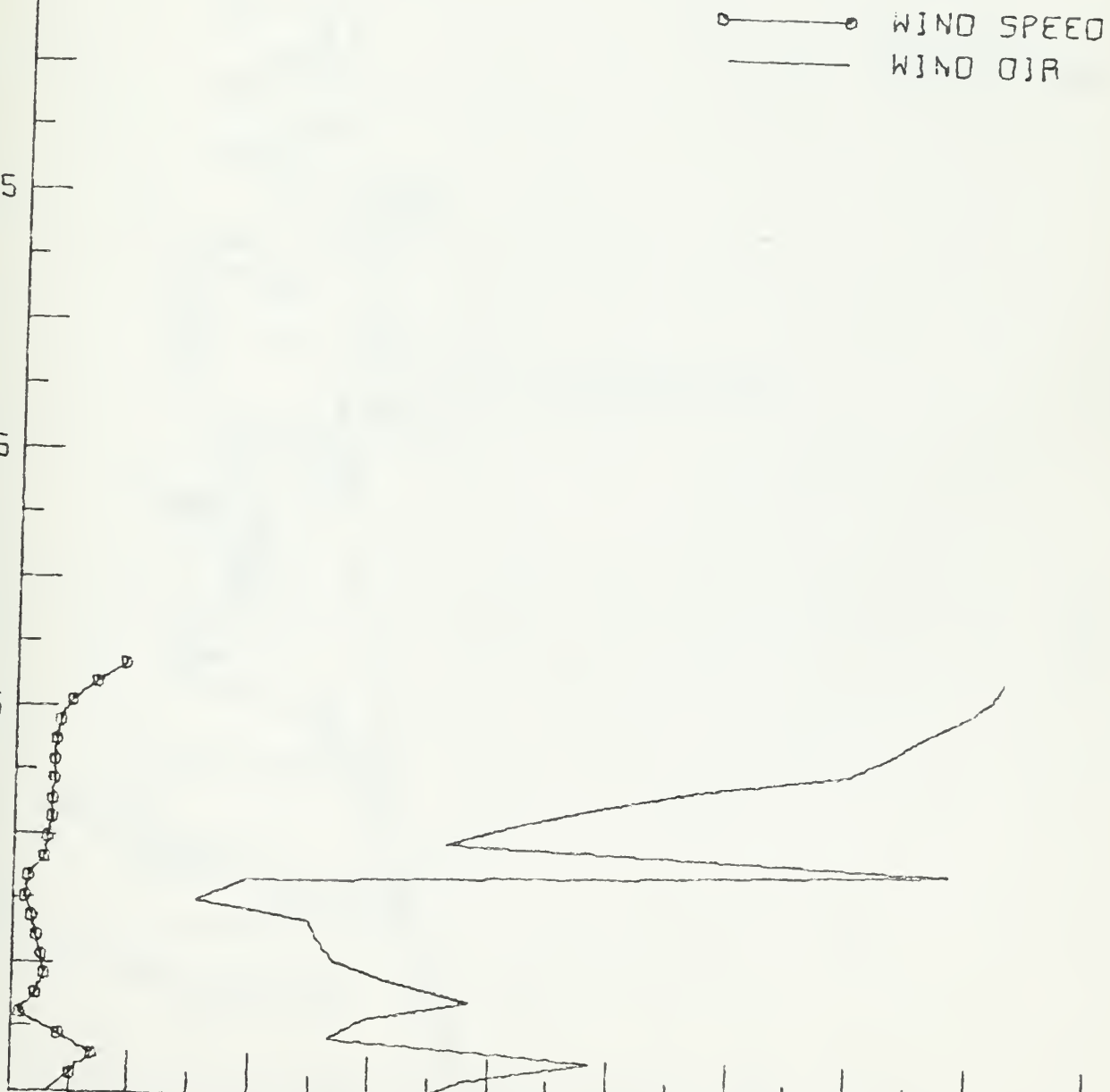
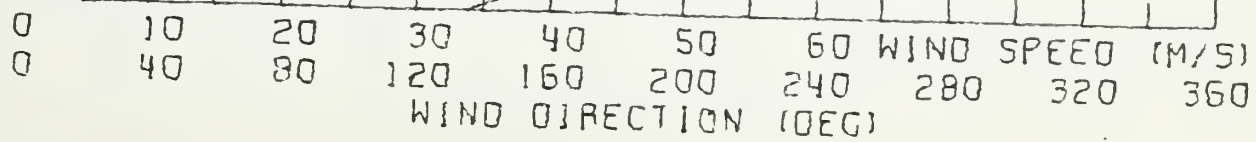


ALTITUDE/METERS X1000



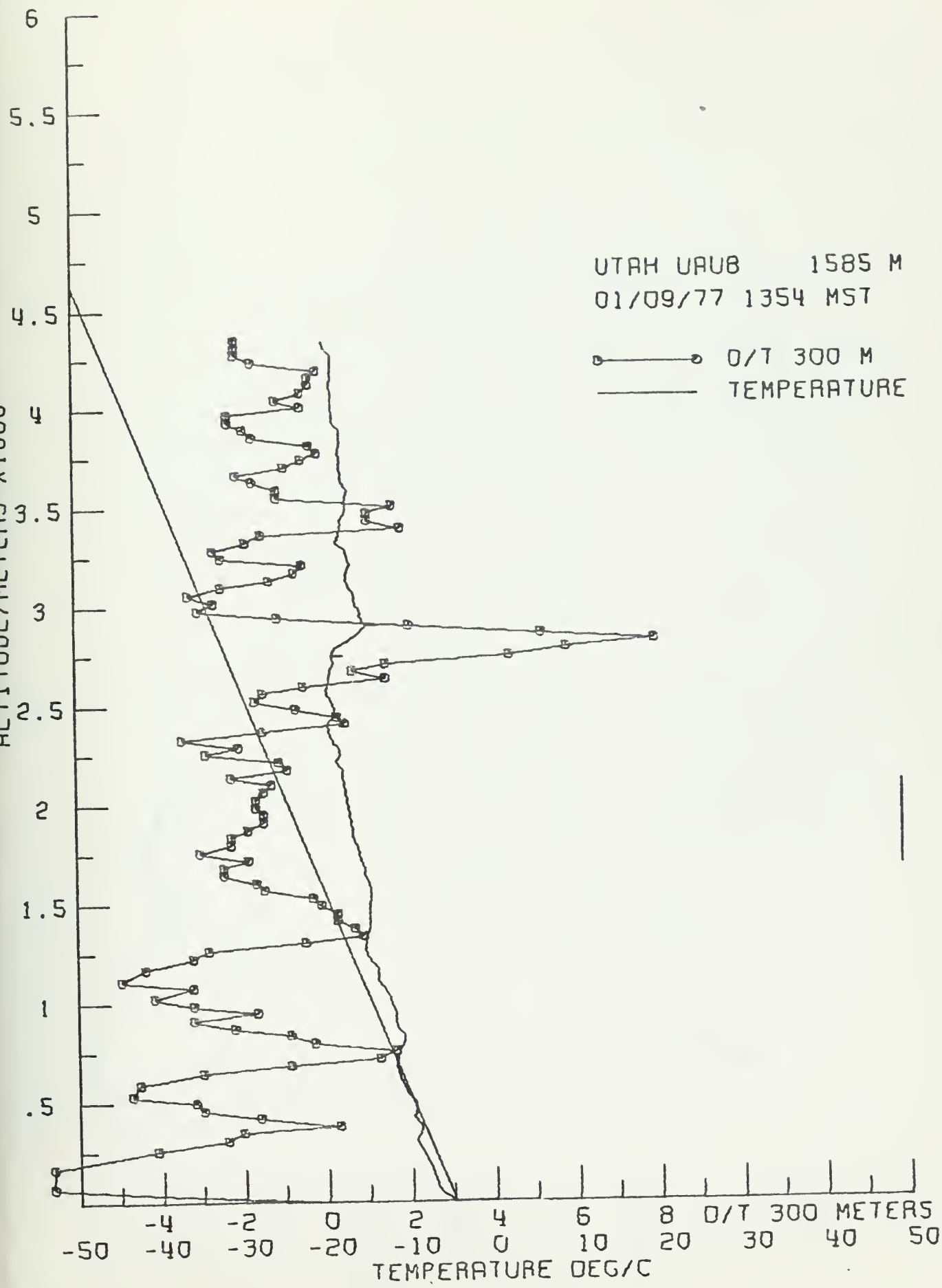
JTA4 UAUB 1585 M  
01/09/77 0735 MST

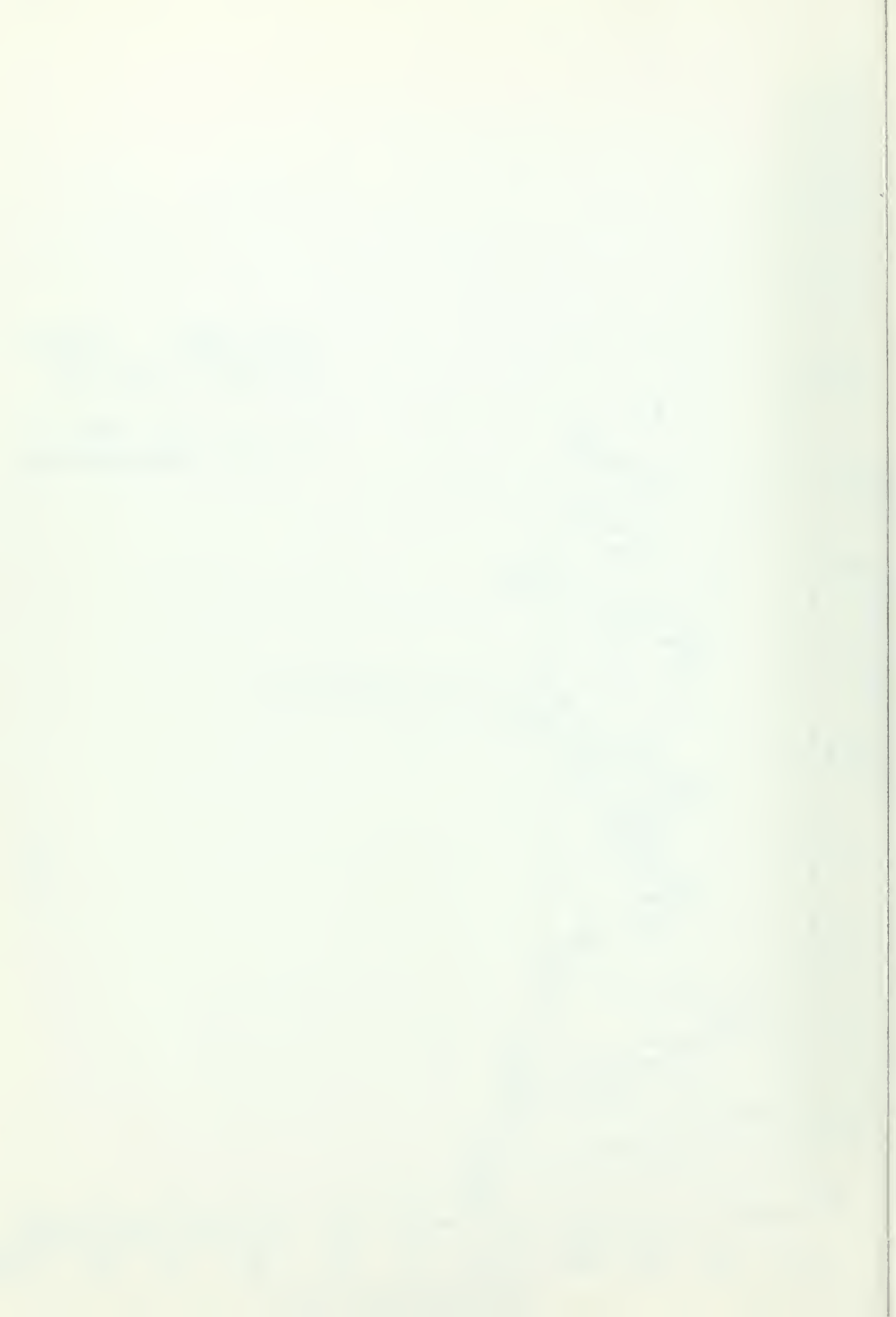
WIND SPEED  
WIND DIR



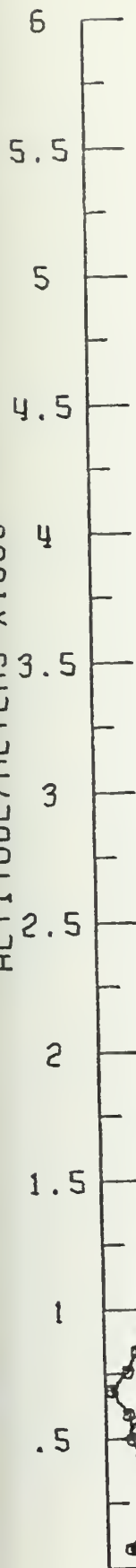


ALTITUDE/METERS X1000





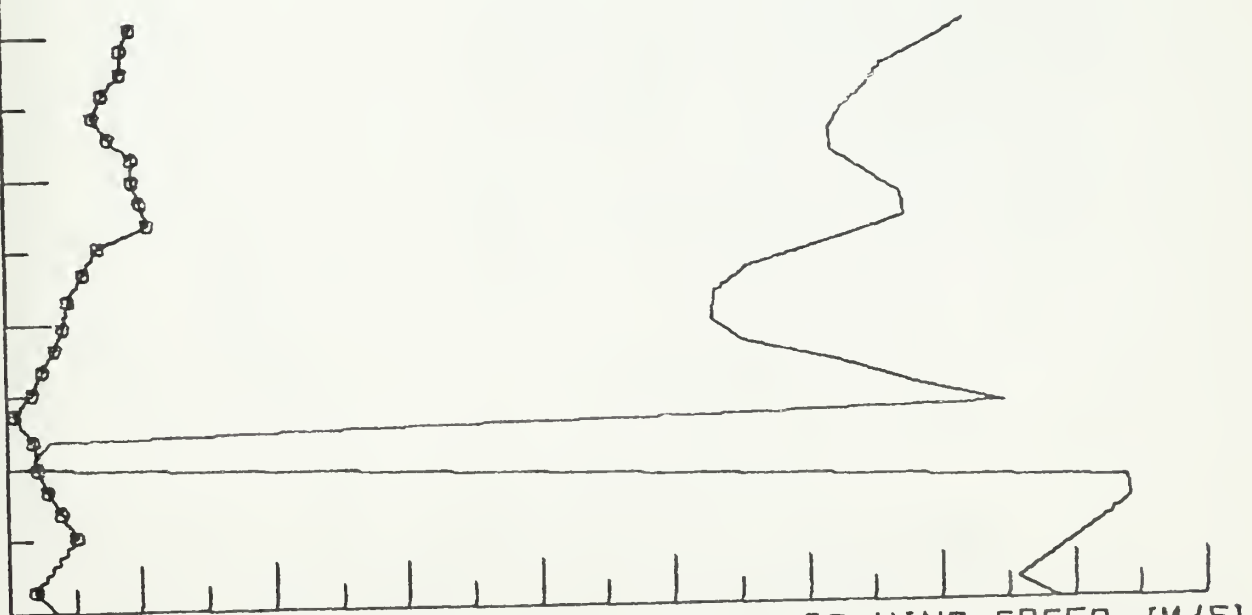
ALTITUDE/METERS X1000



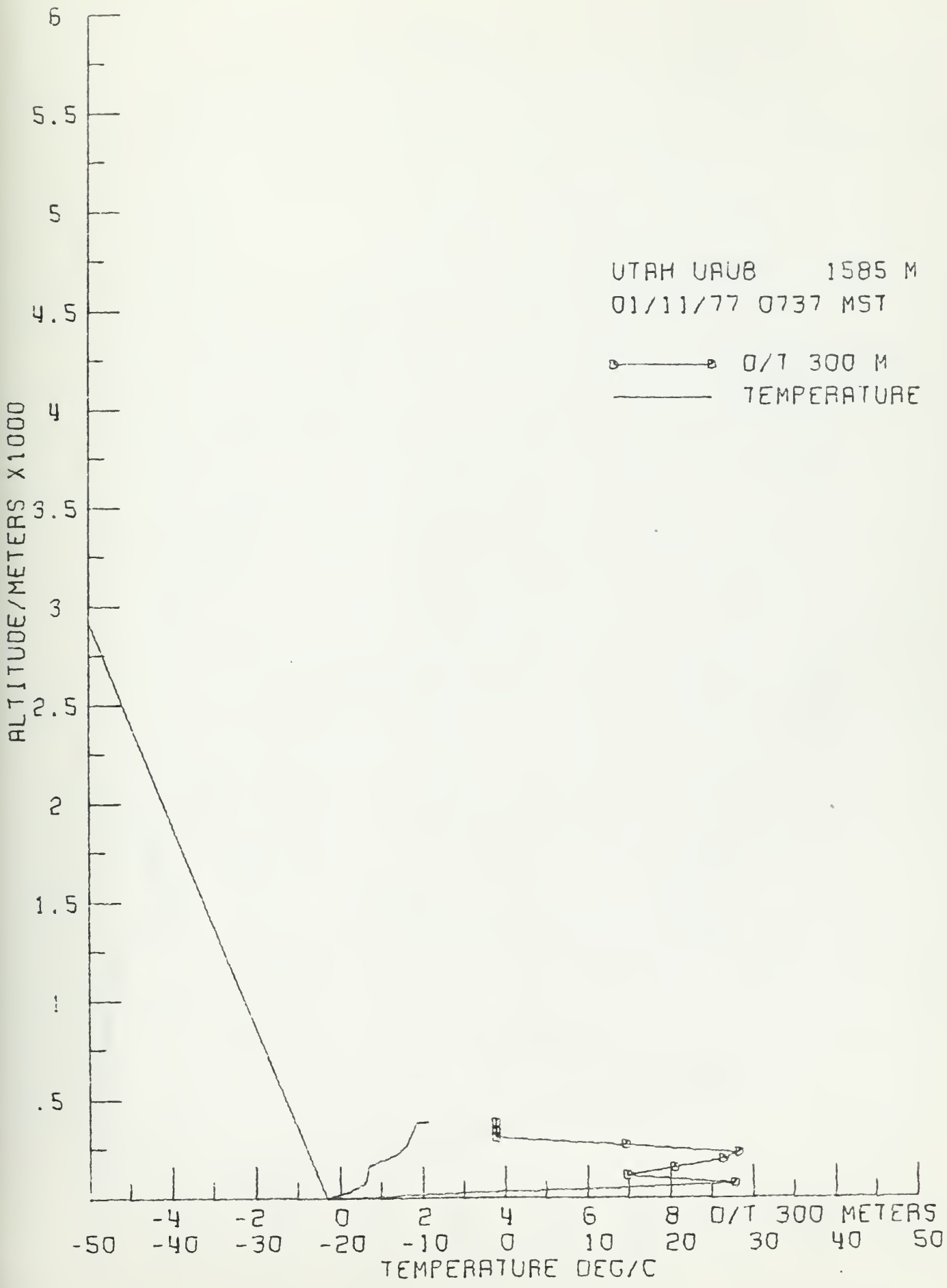
UTAH UAUB 1585 M  
01/09/77 1354 MST

WIND SPEED  
WIND DIR

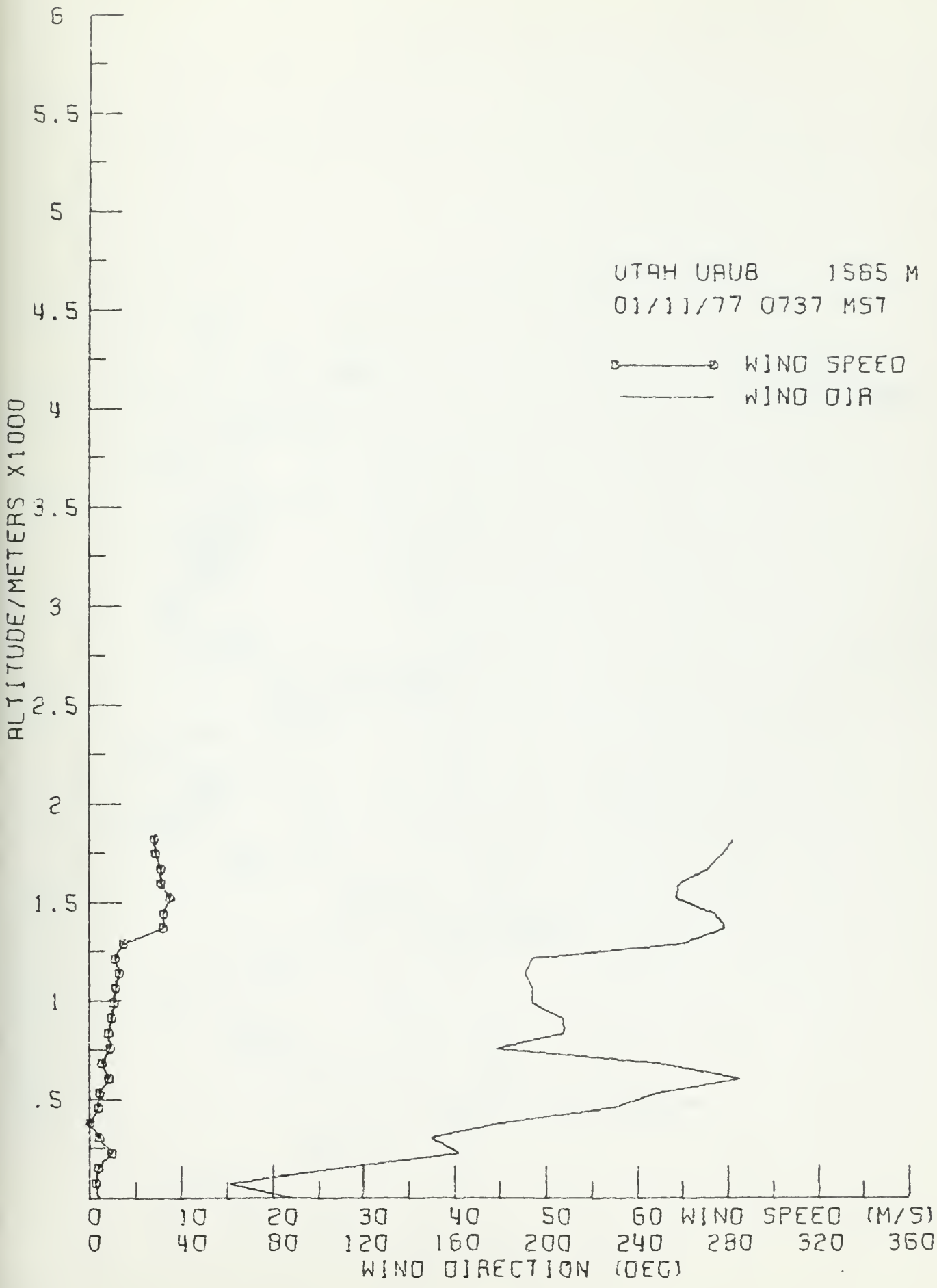
WIND SPEED (M/S)  
WIND DIRECTION (DEG)





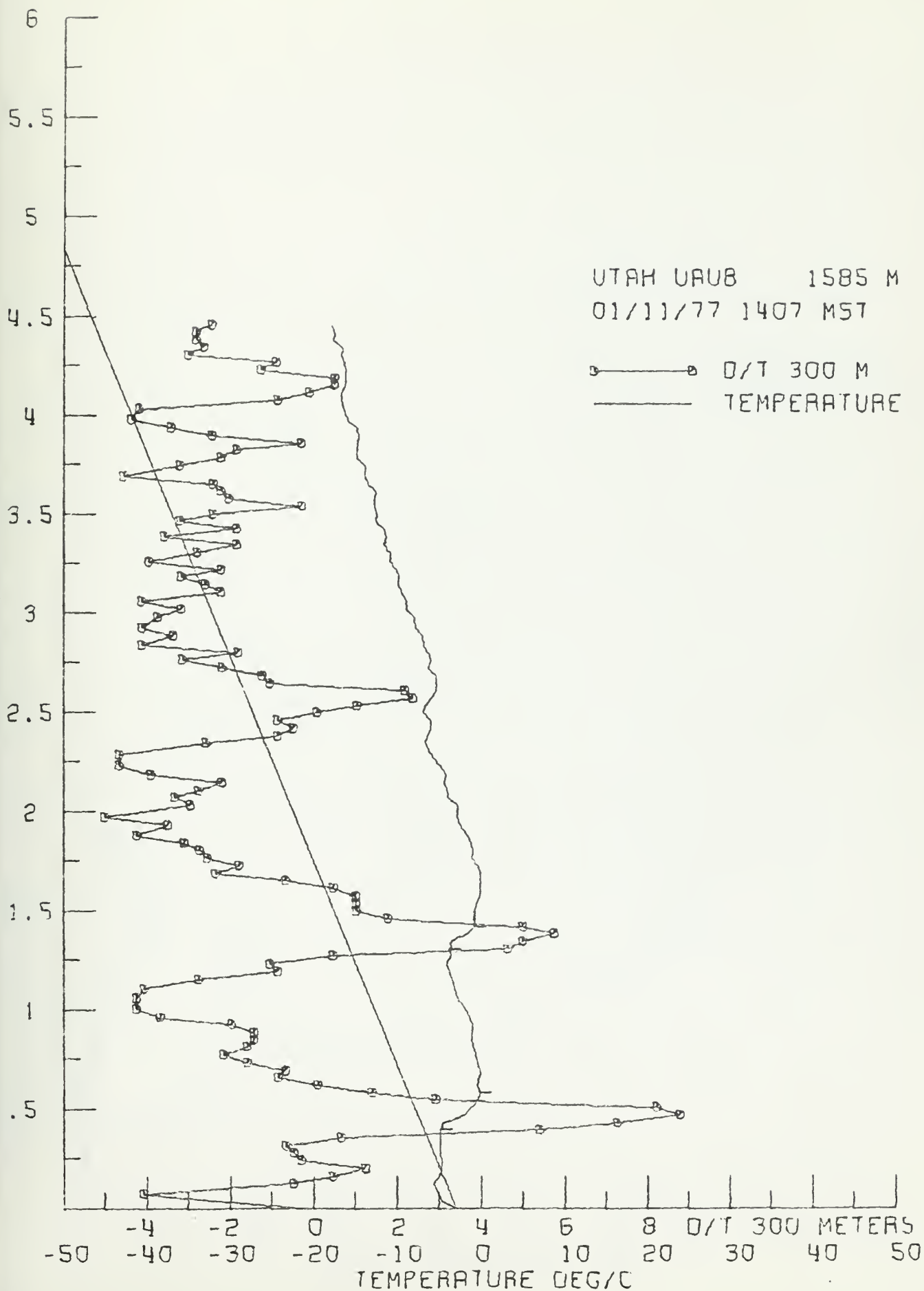






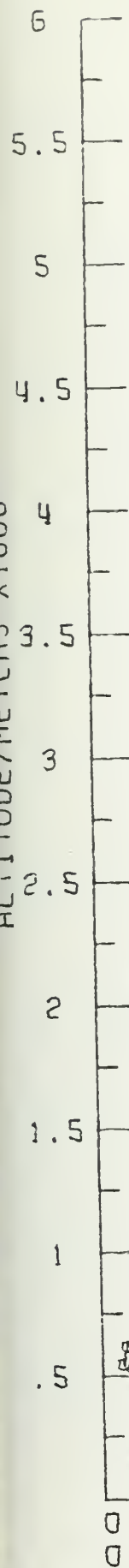


ALTITUDE/METERS X1000



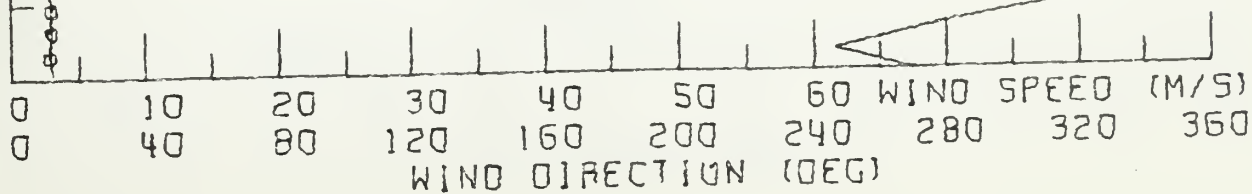


ALTITUDE/METERS X1000



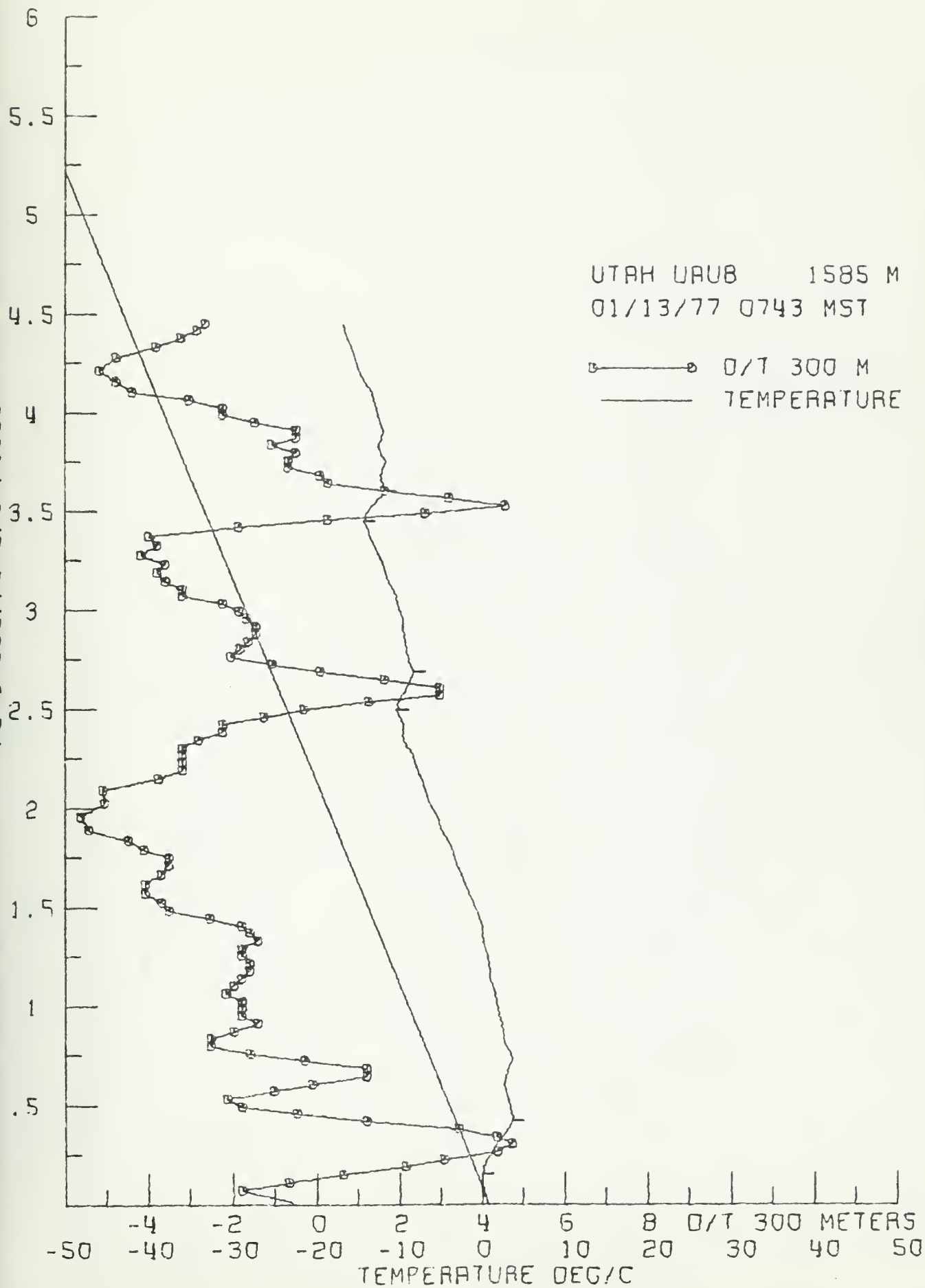
UTAH UAJB 1565 M  
01/11/77 1407 MST

○—○ WIND SPEED  
— WIND DIR

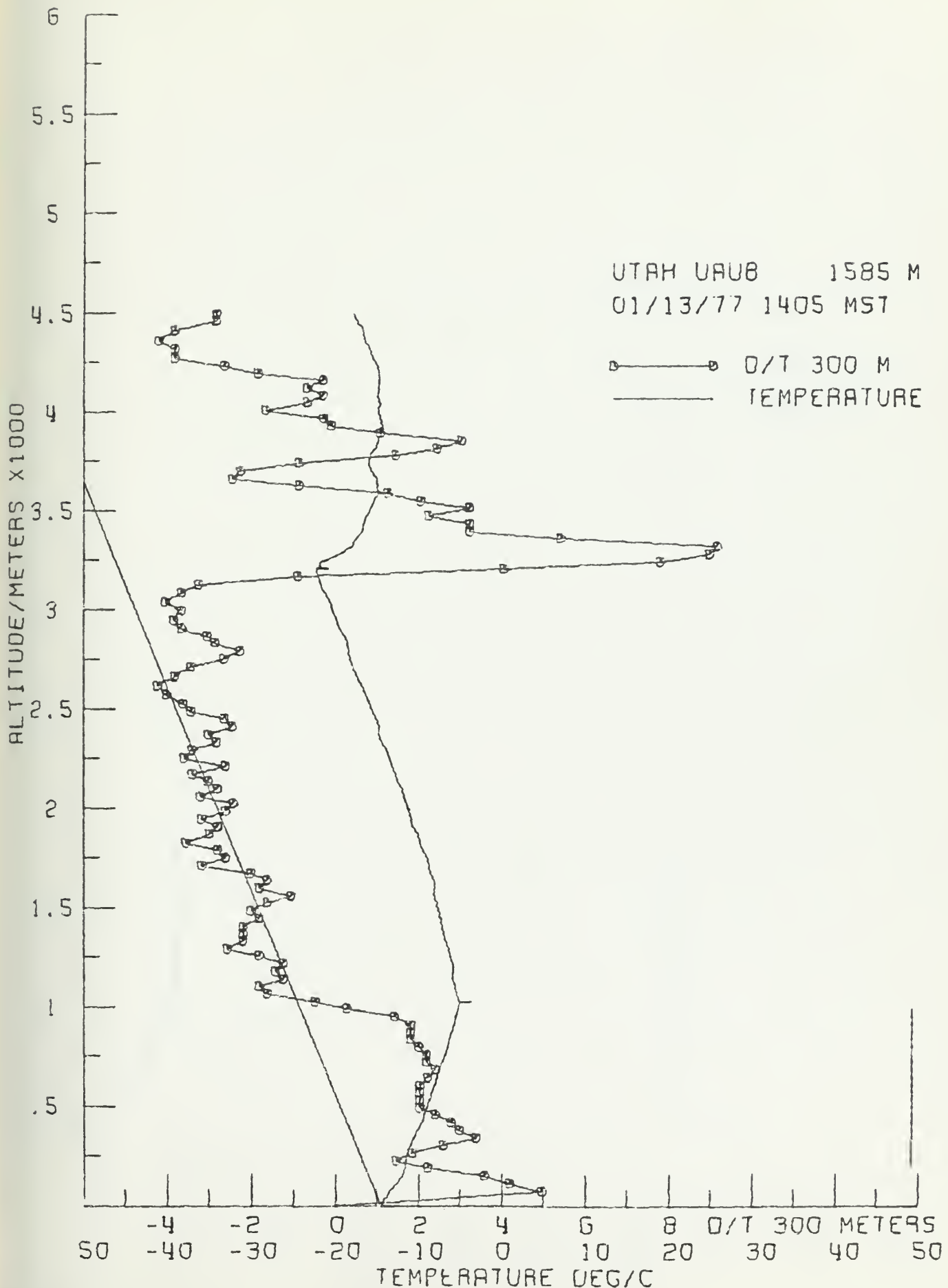




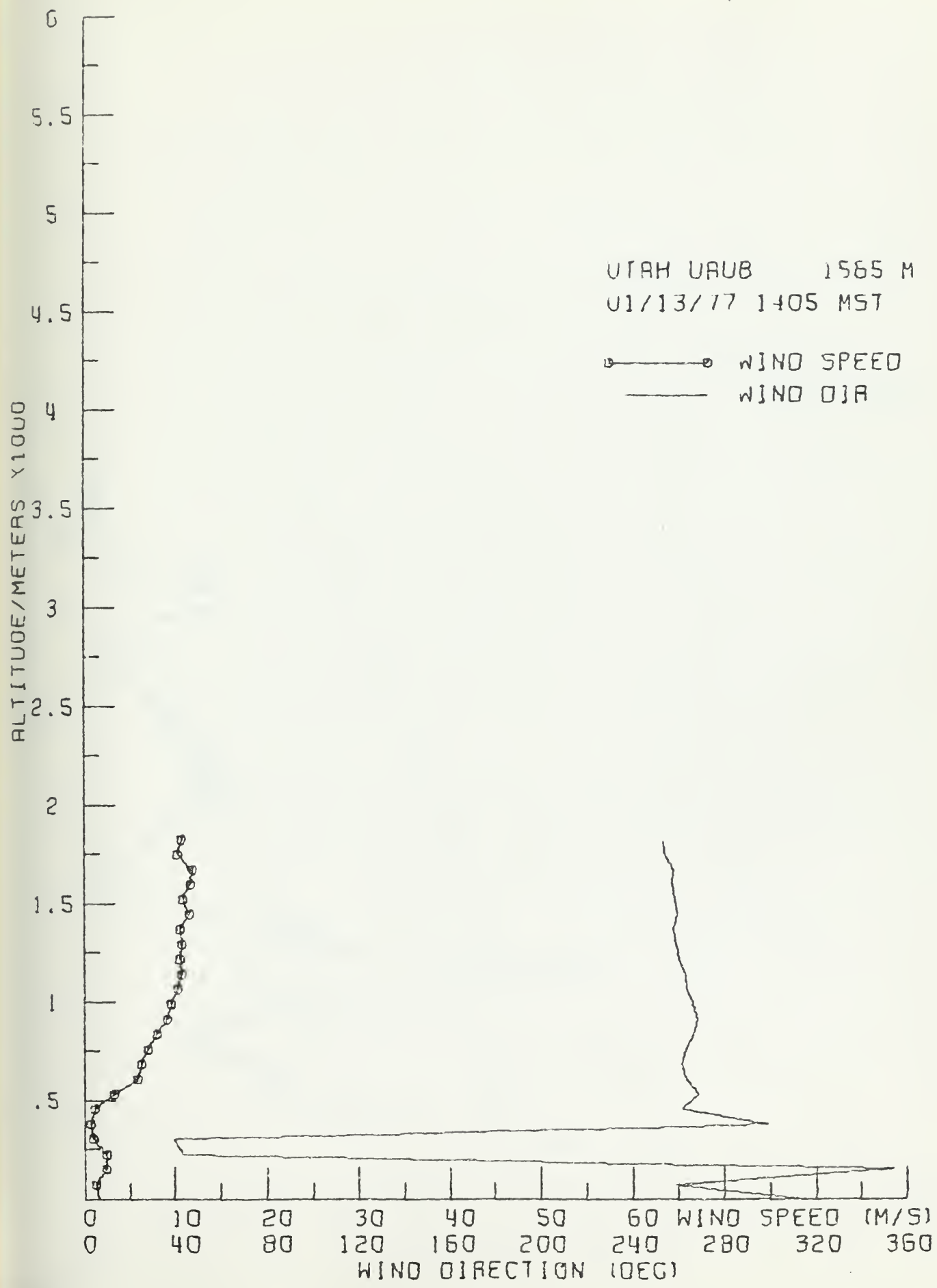
ALTITUDE/METERS X1000



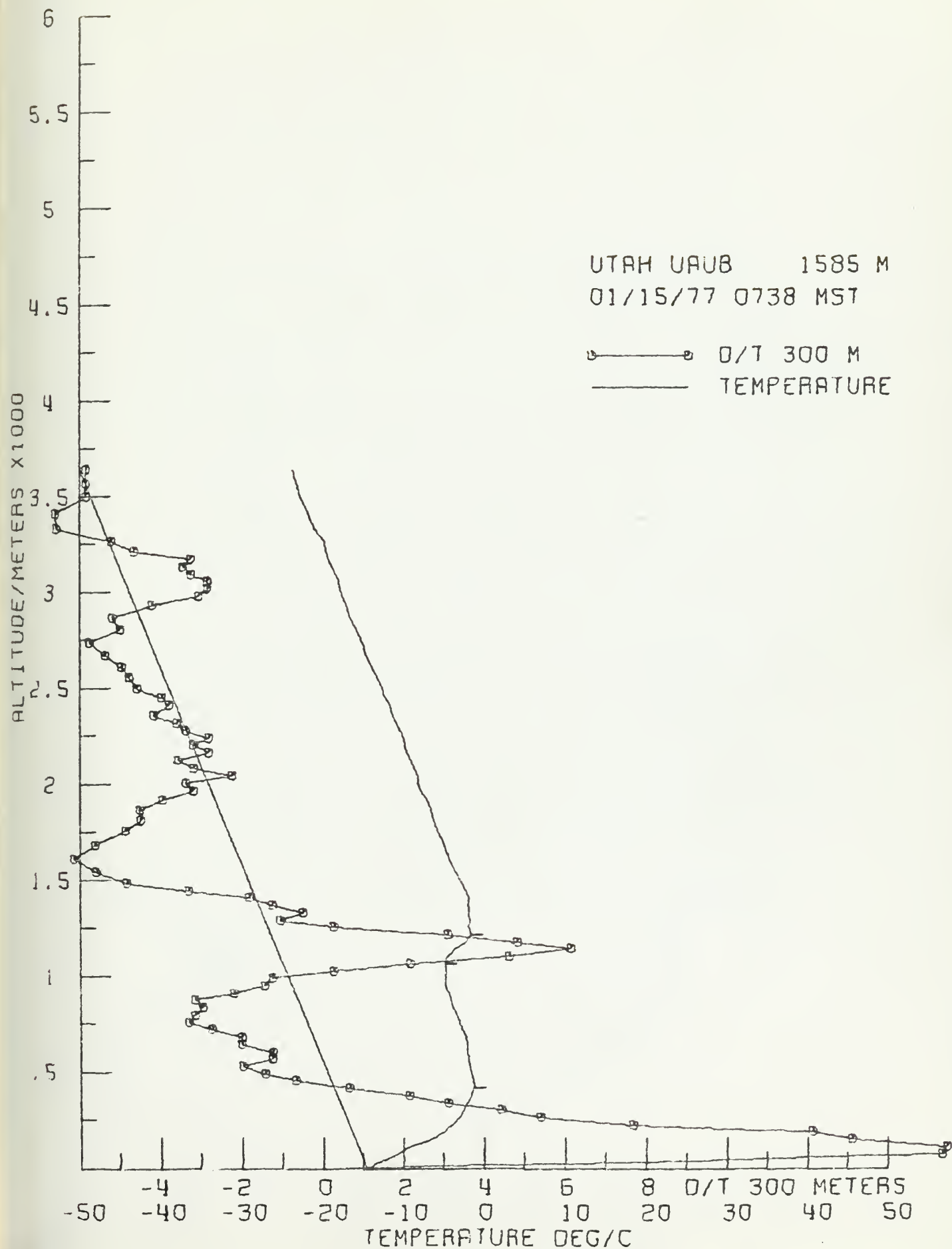




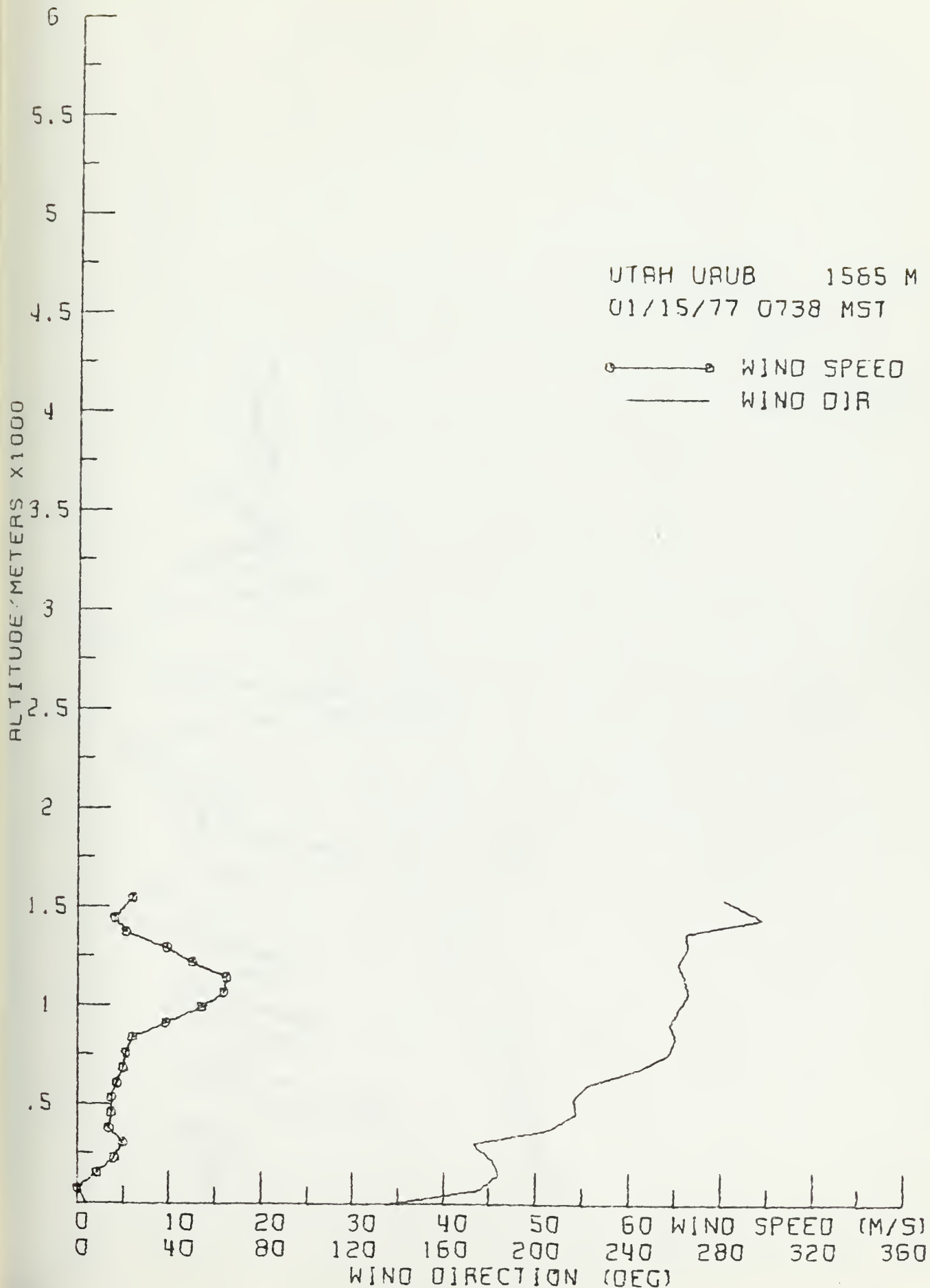




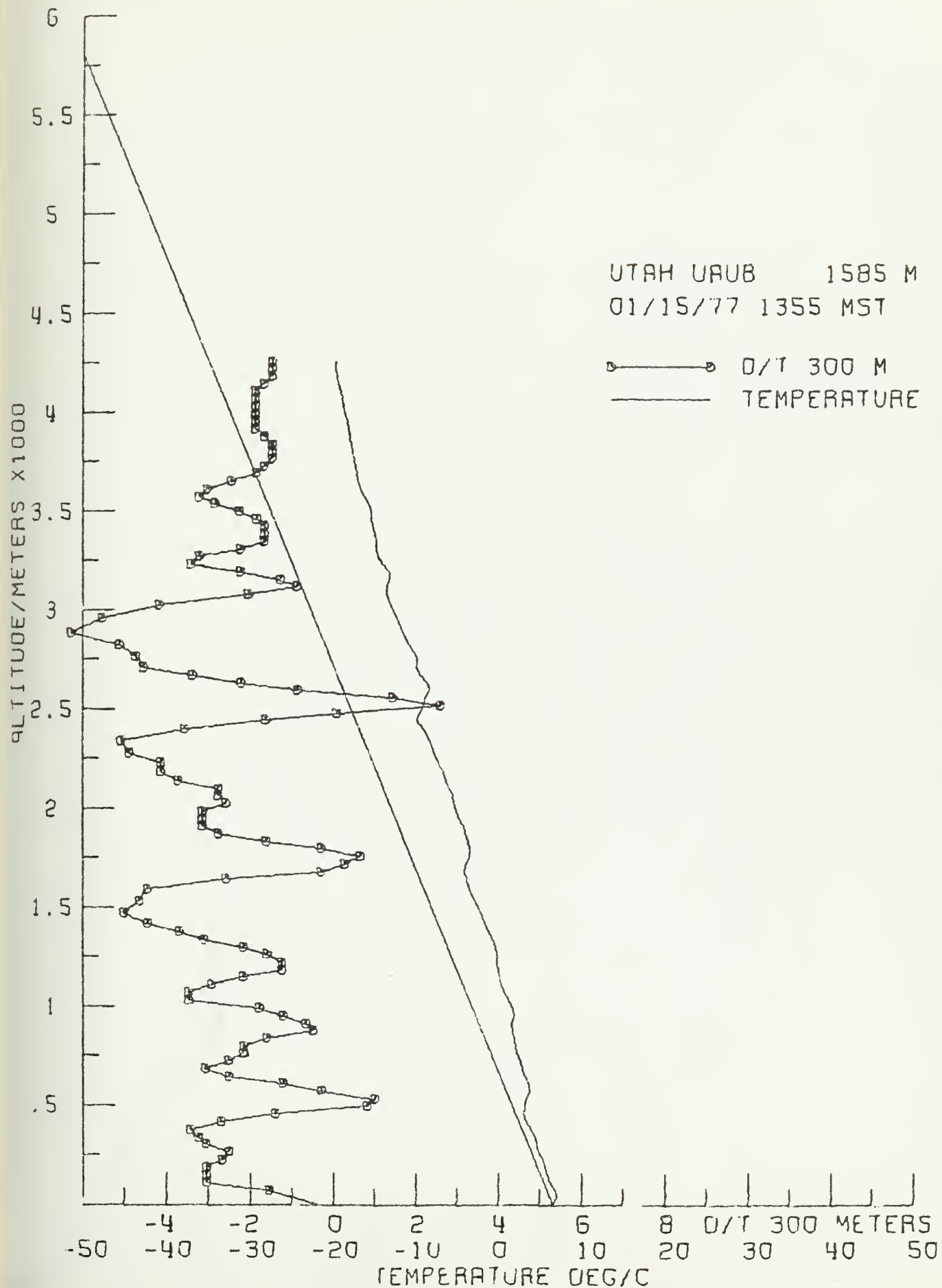




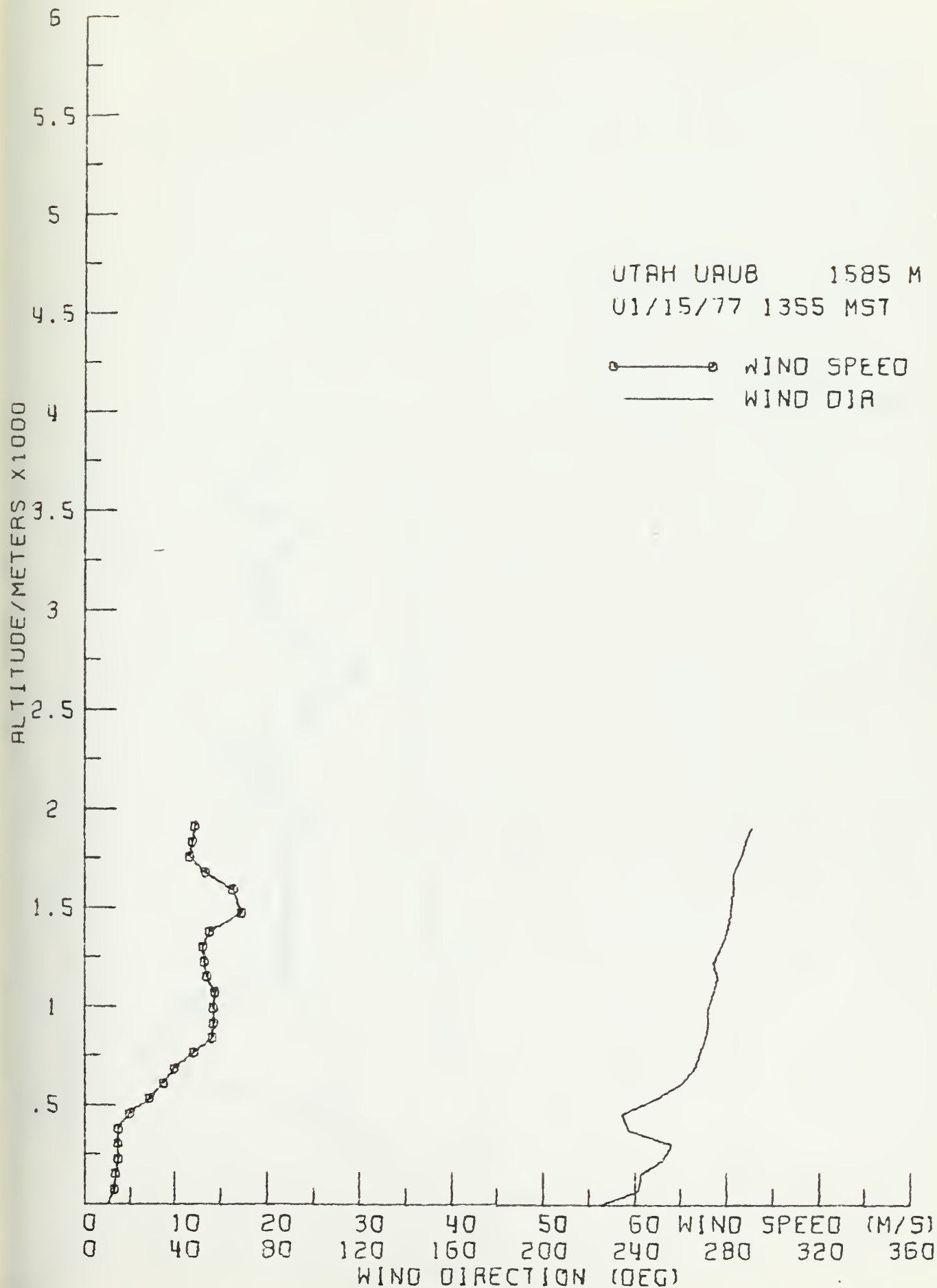




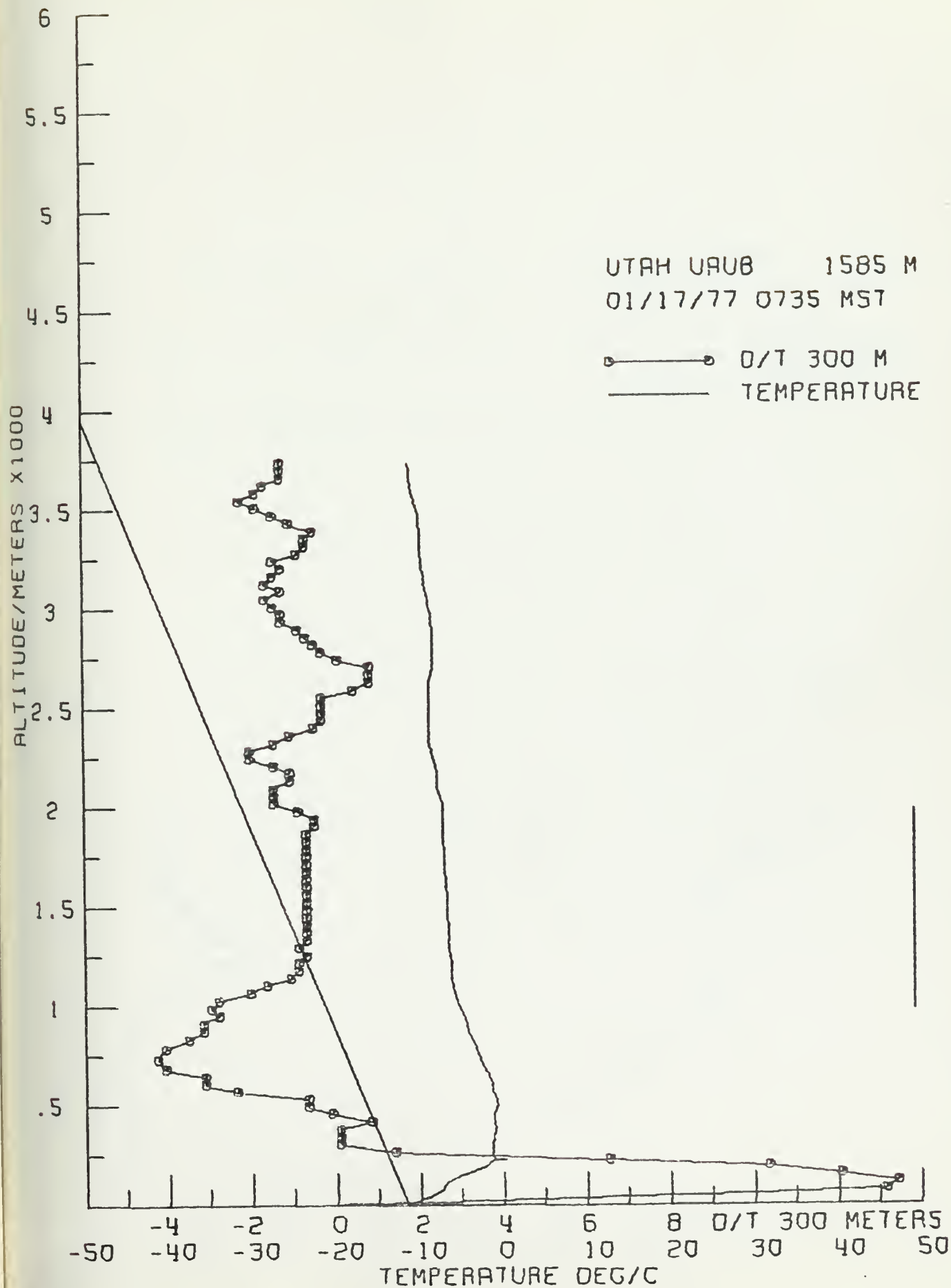




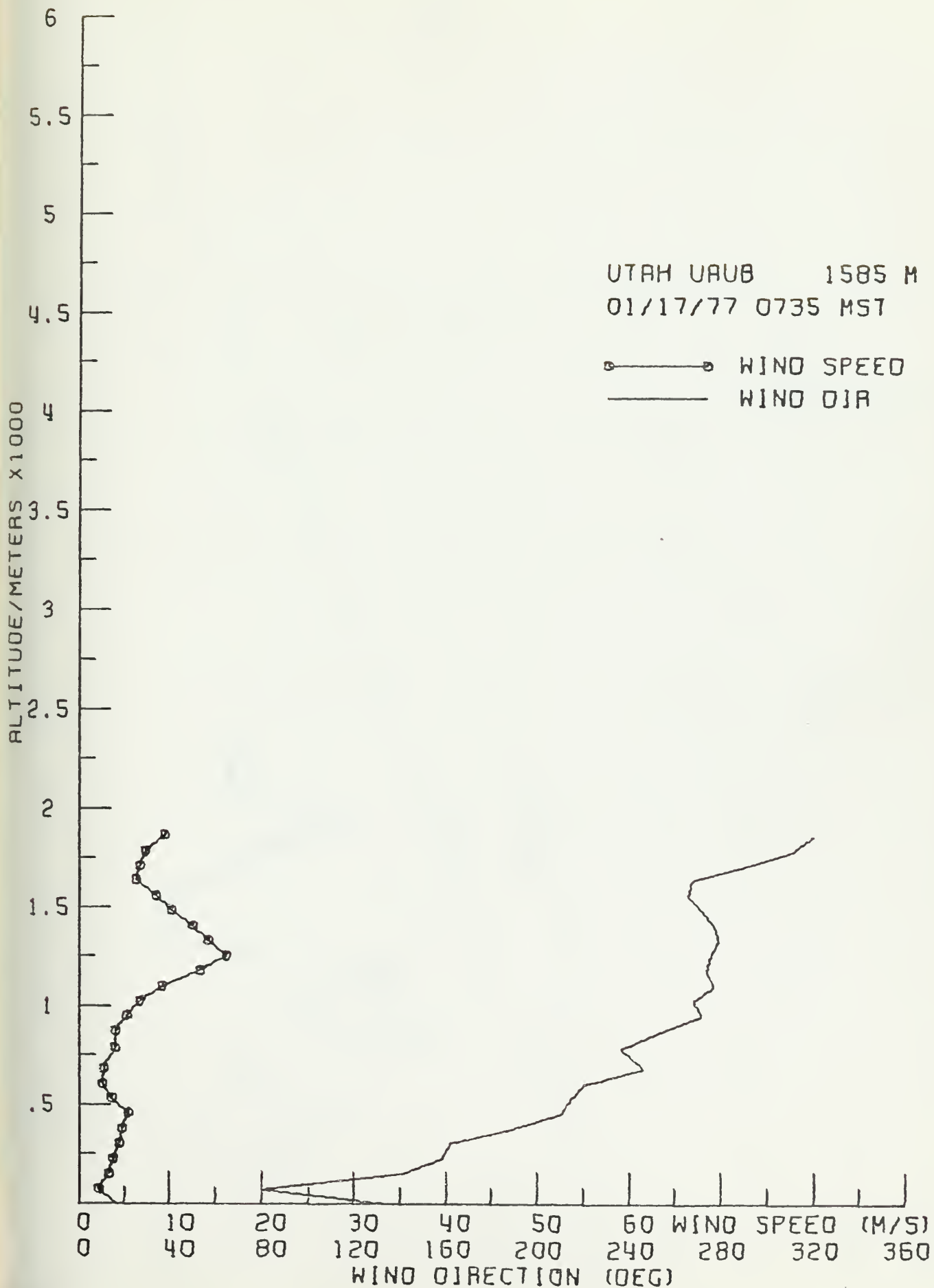




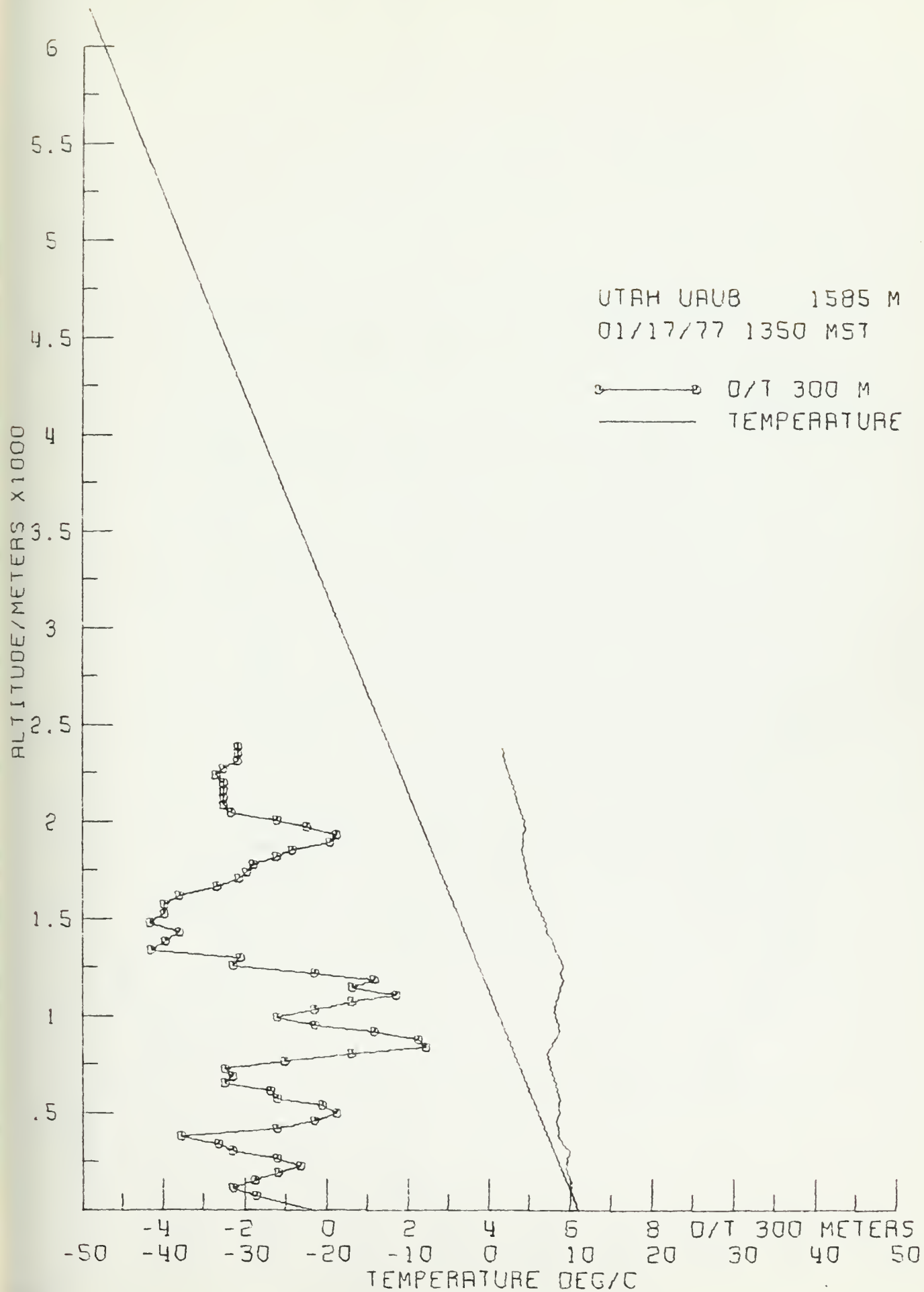




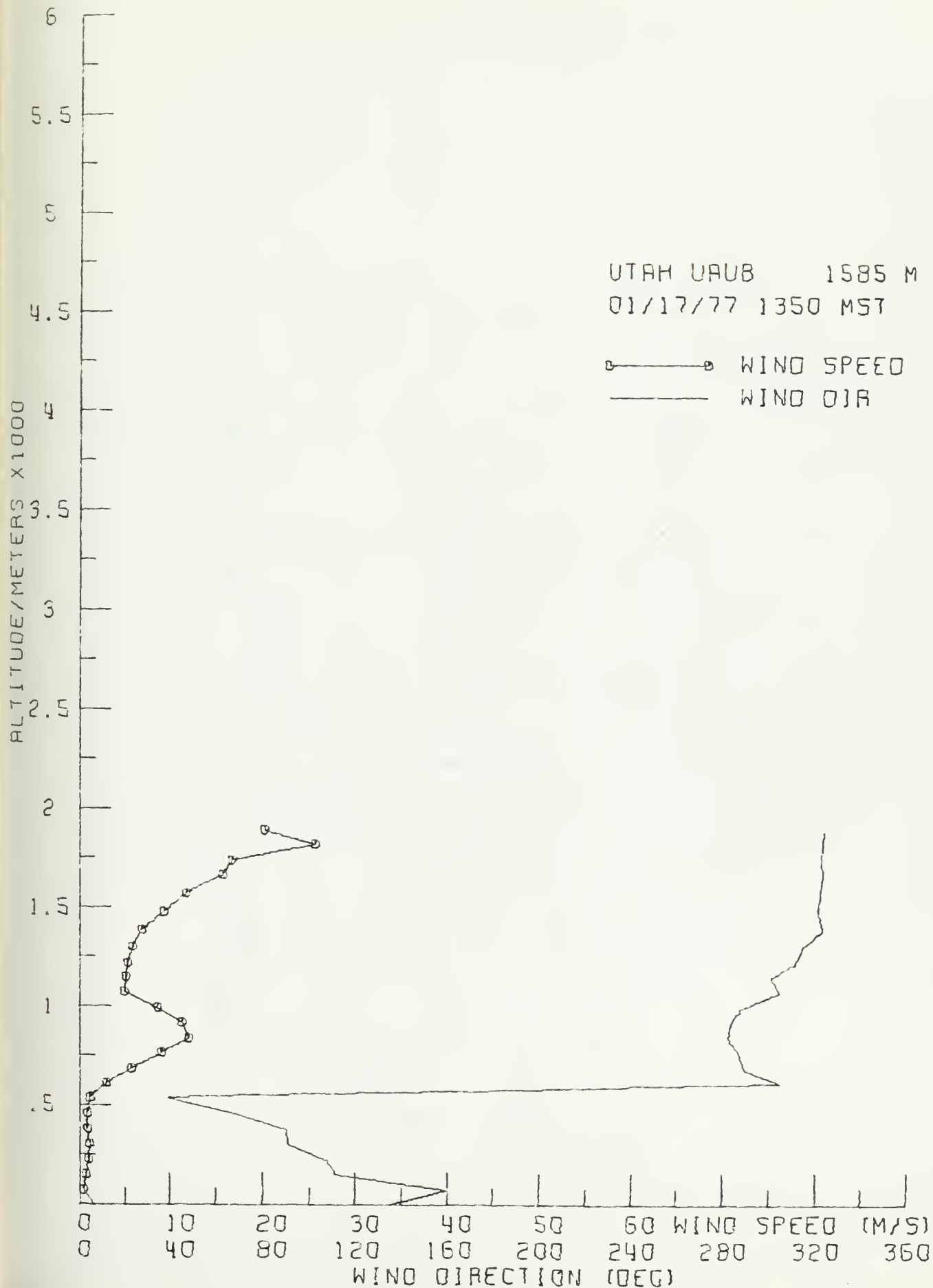




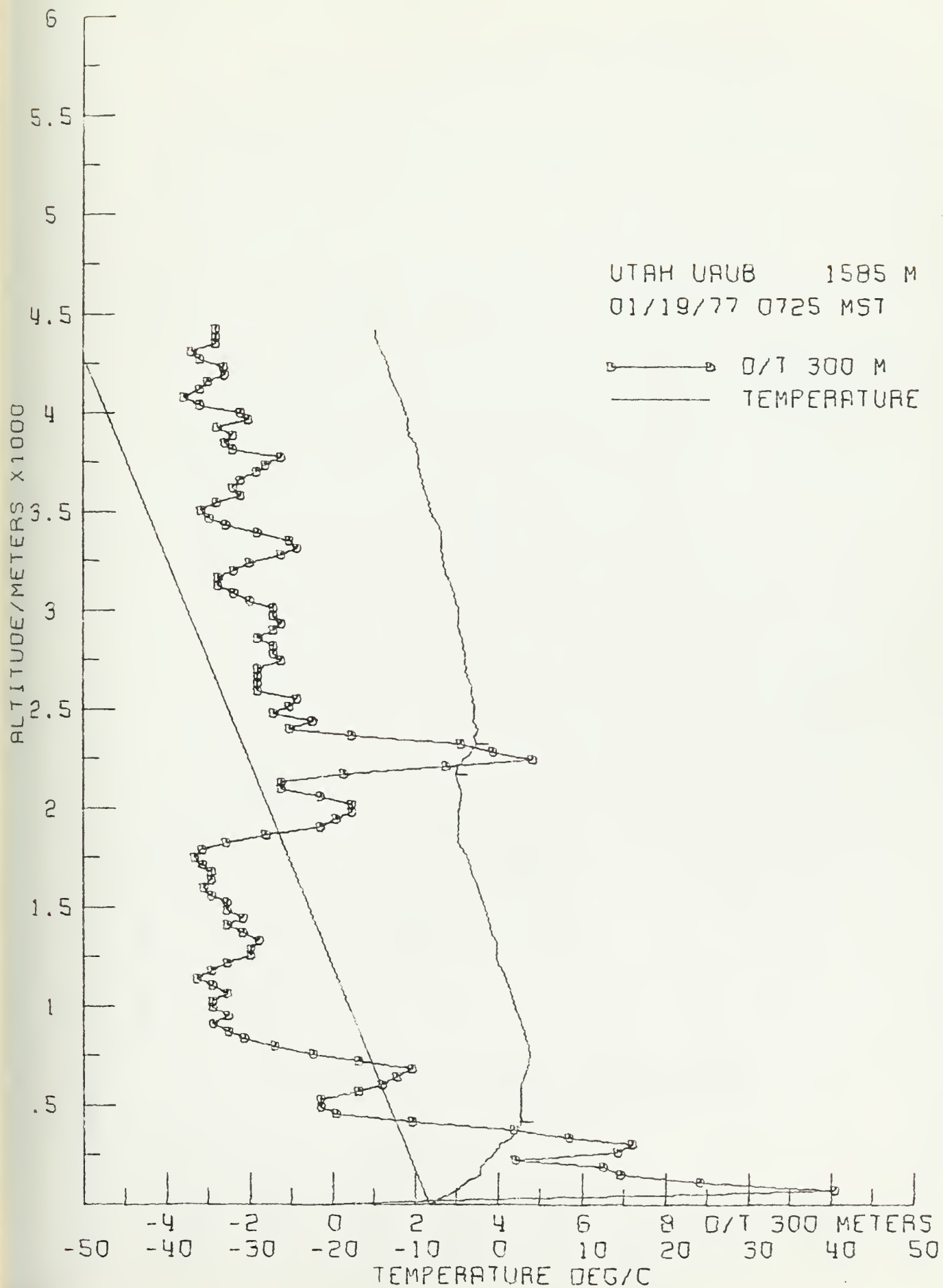




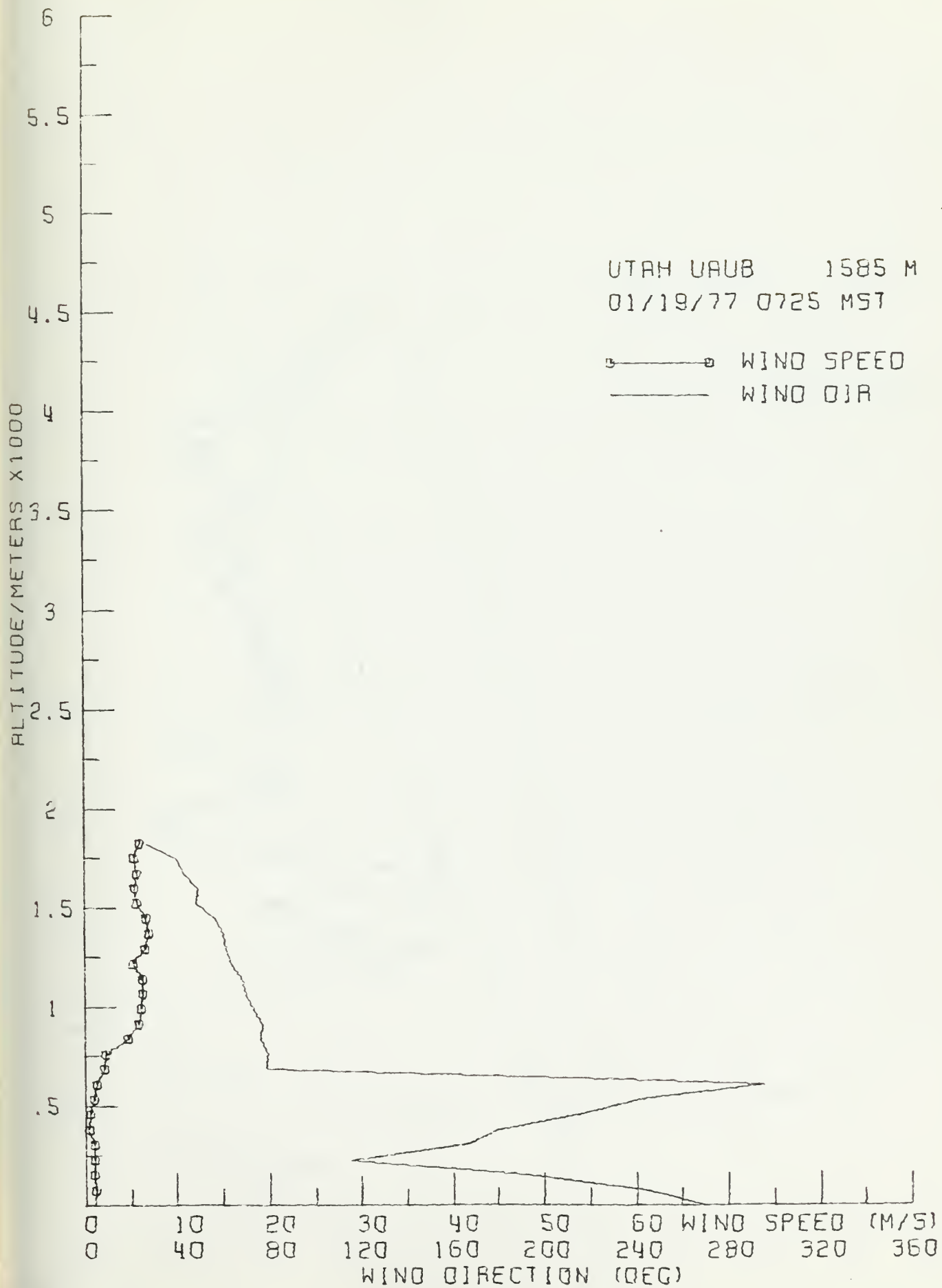




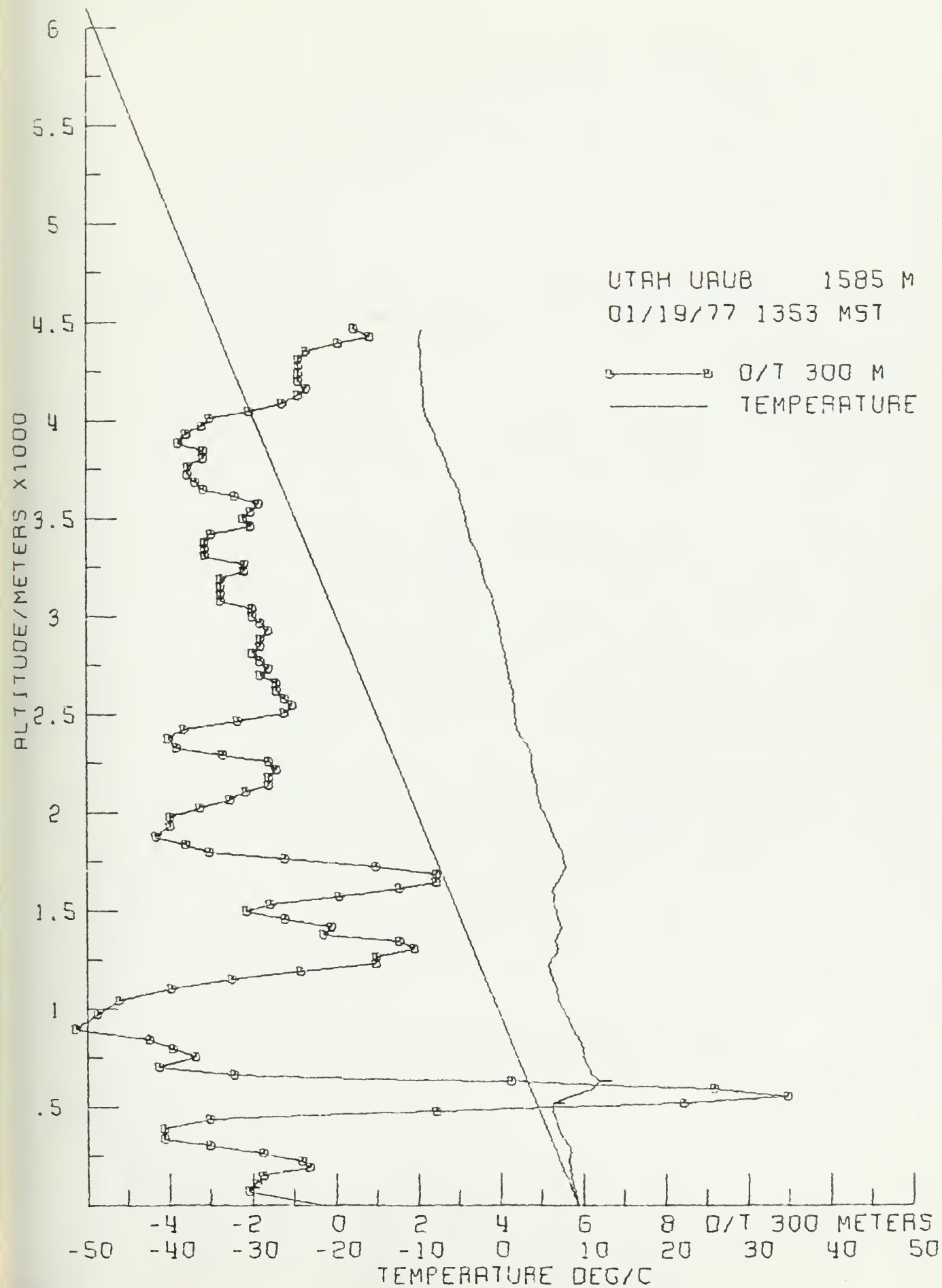




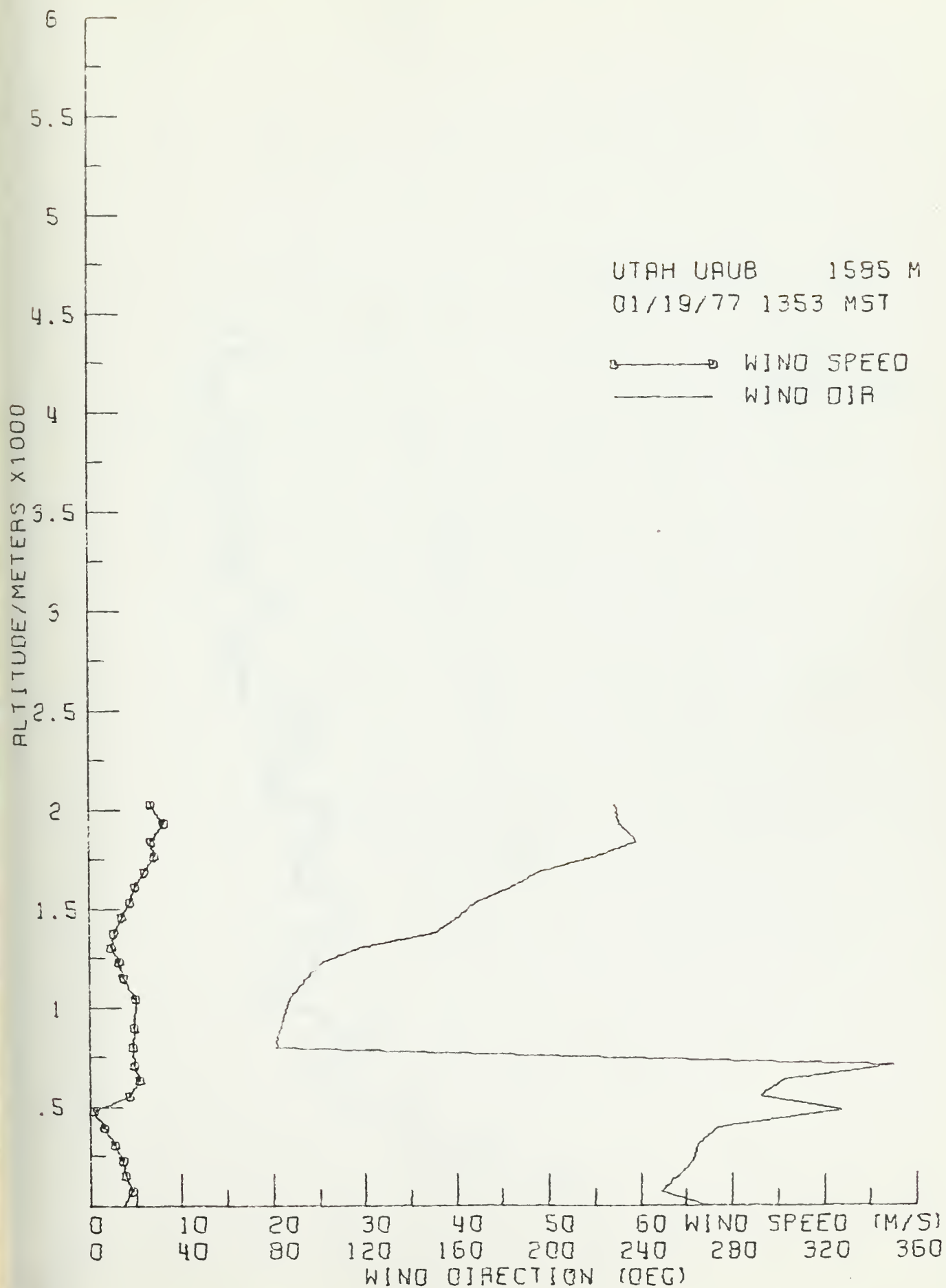




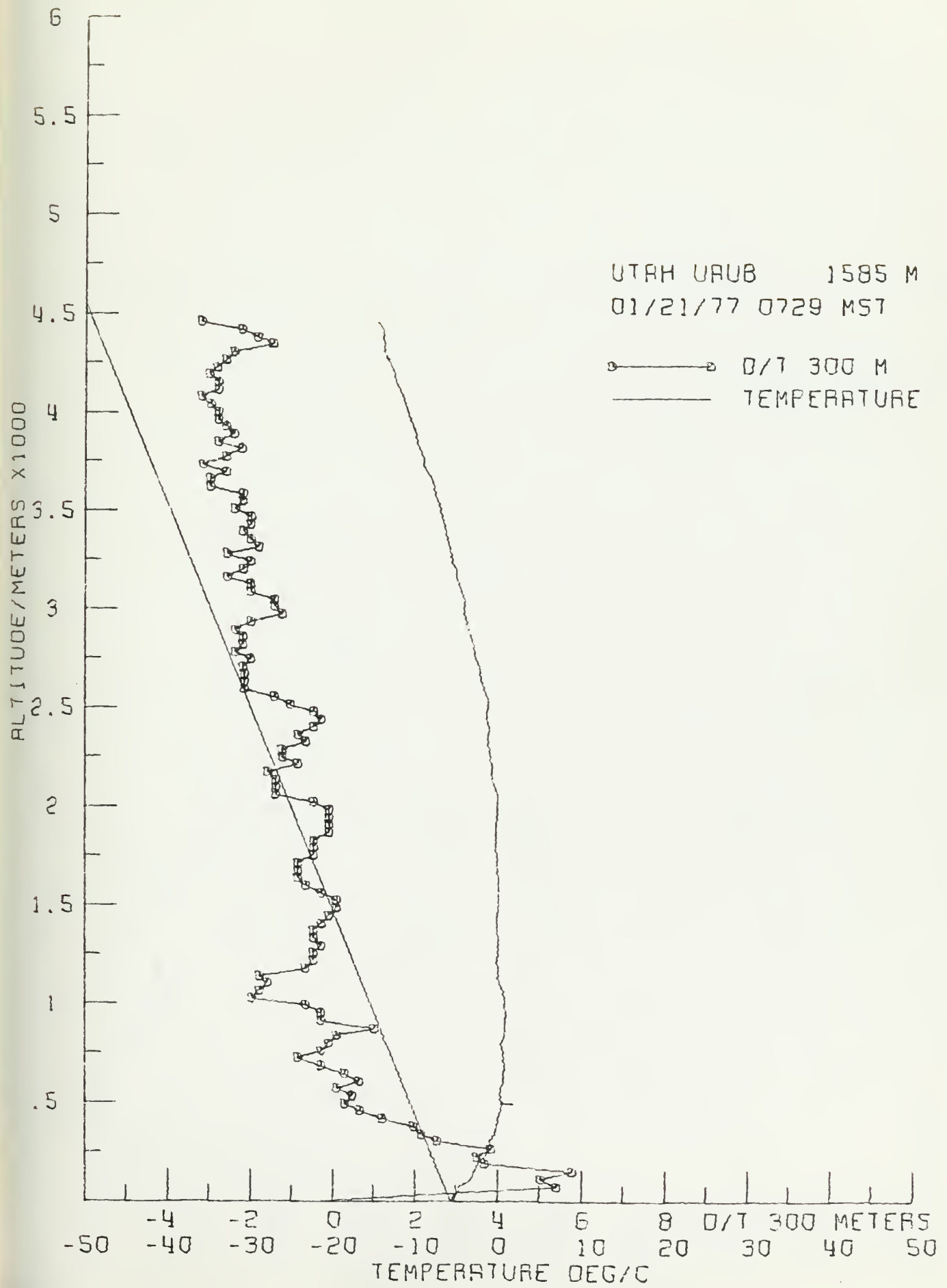




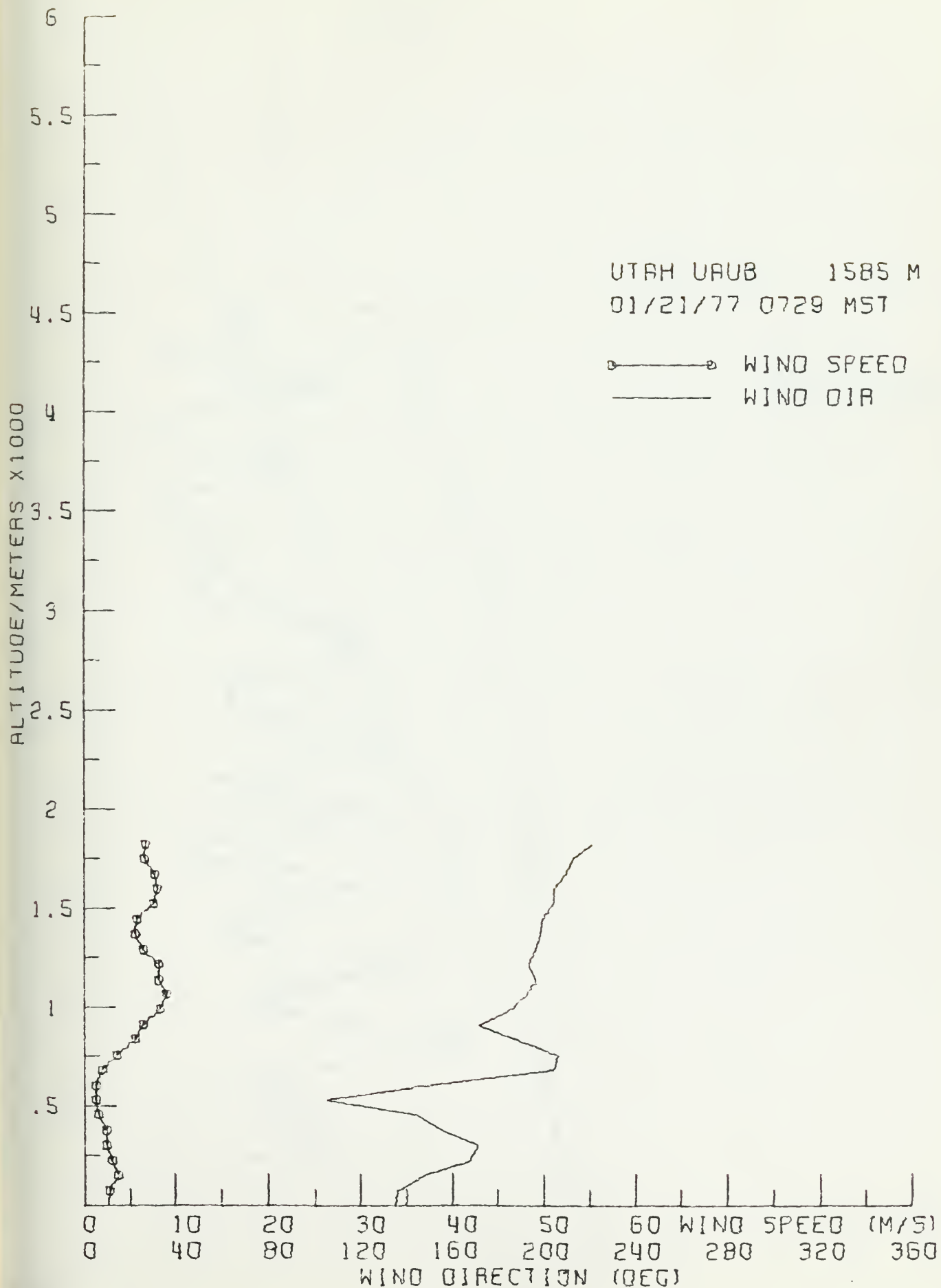




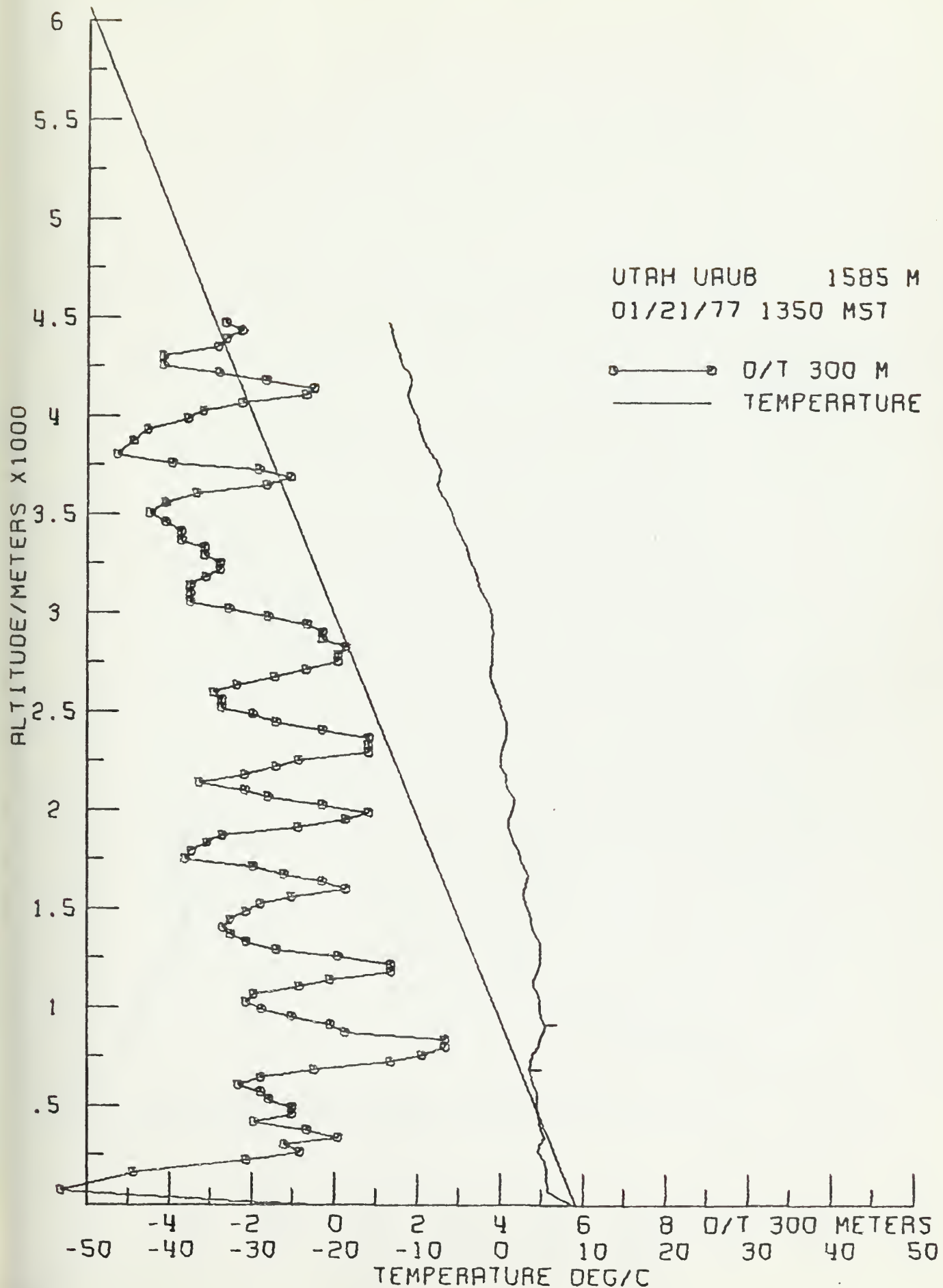




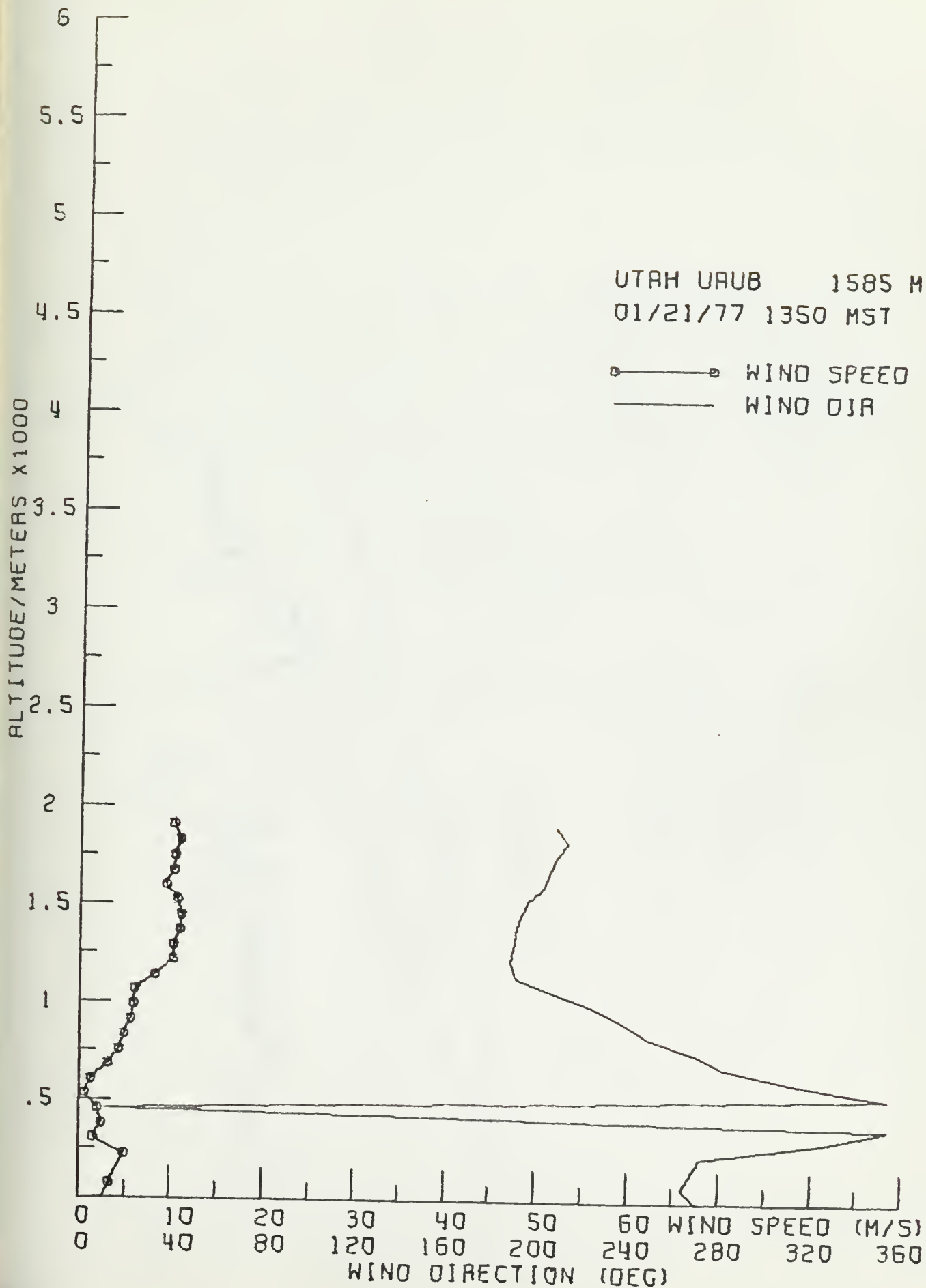




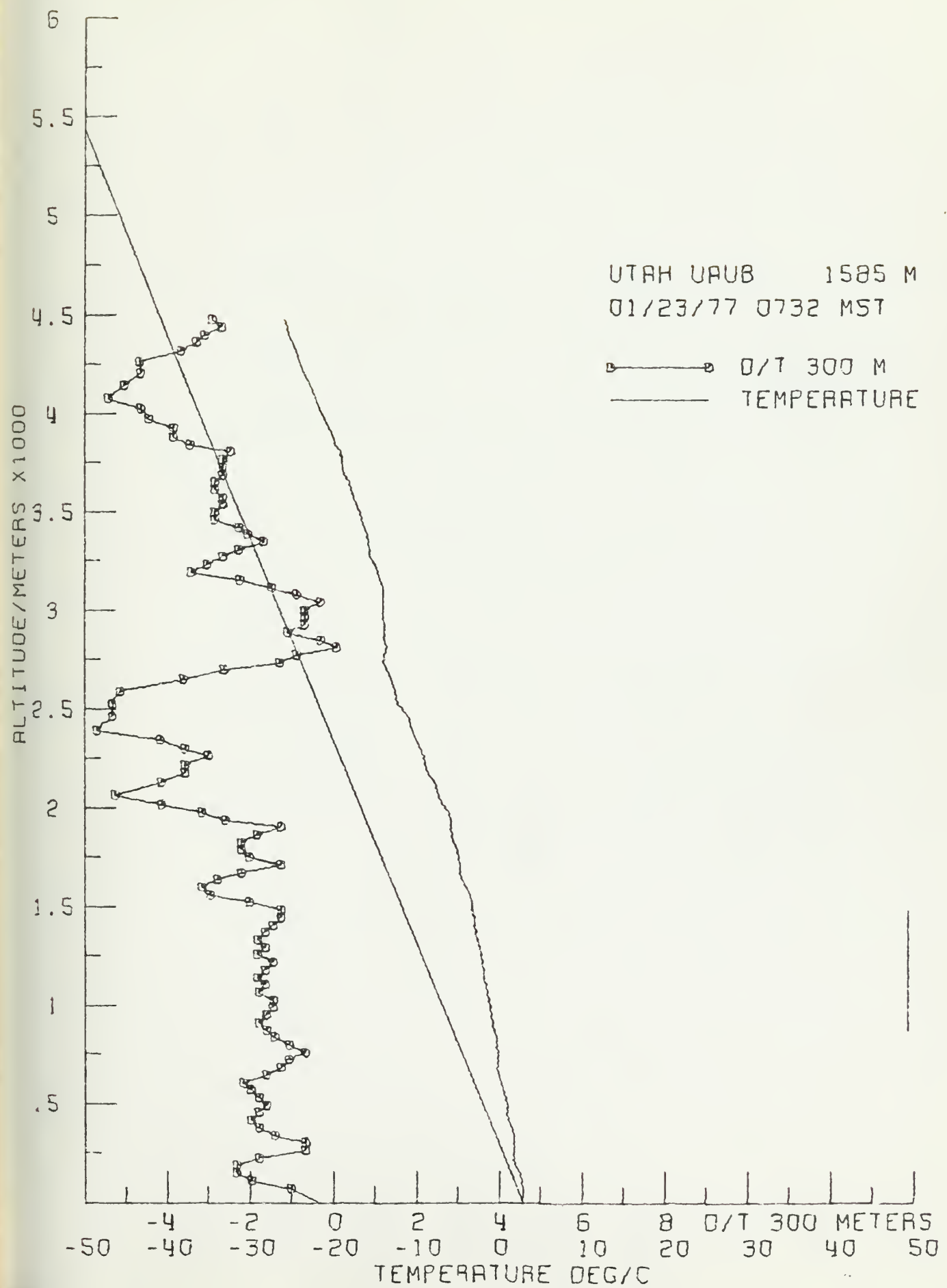




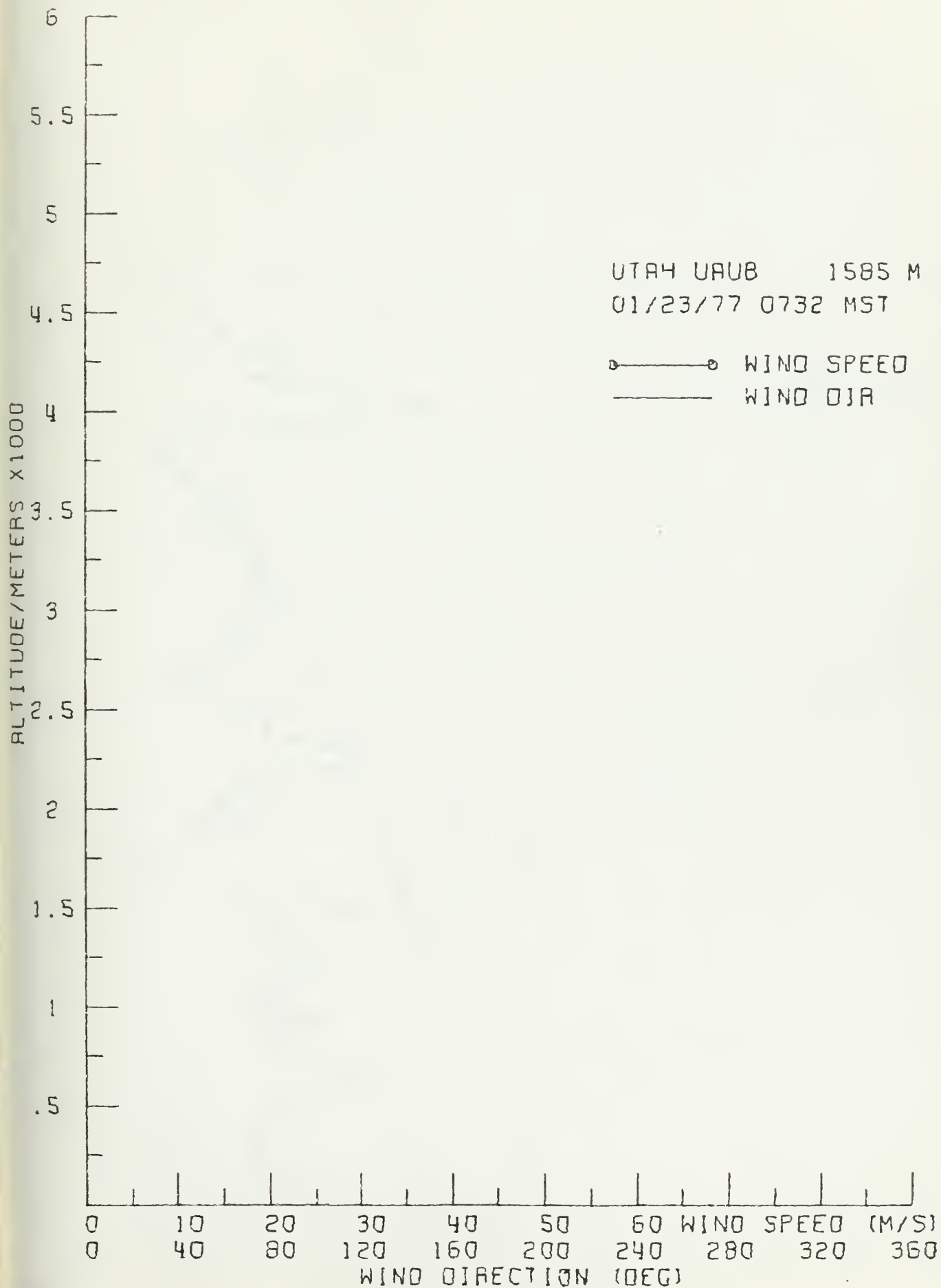




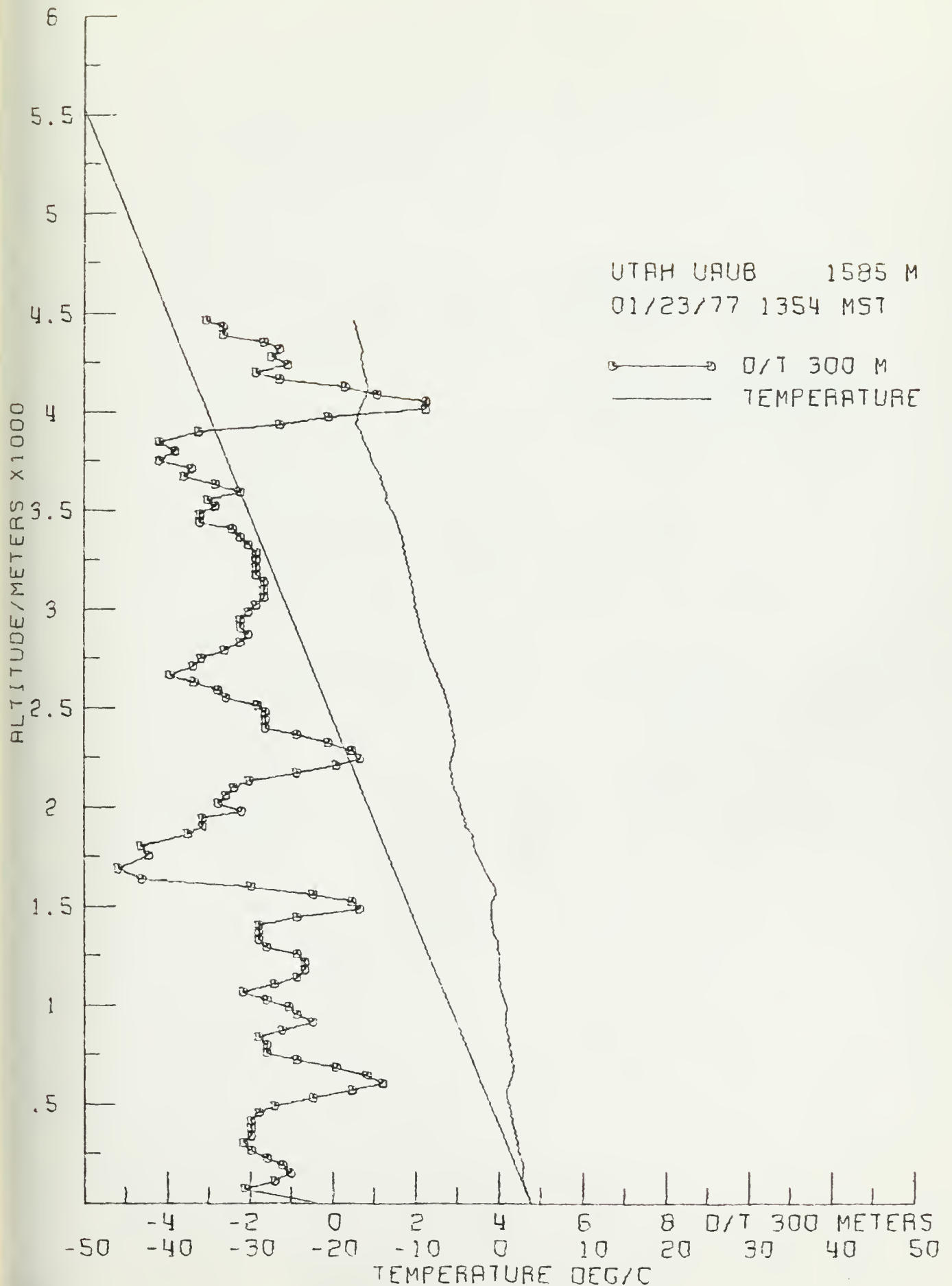






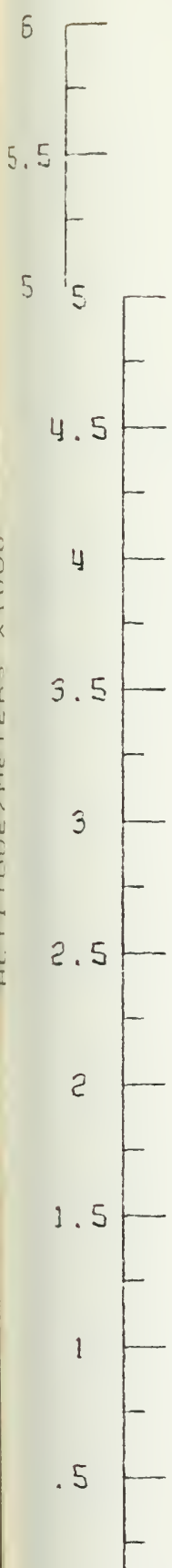






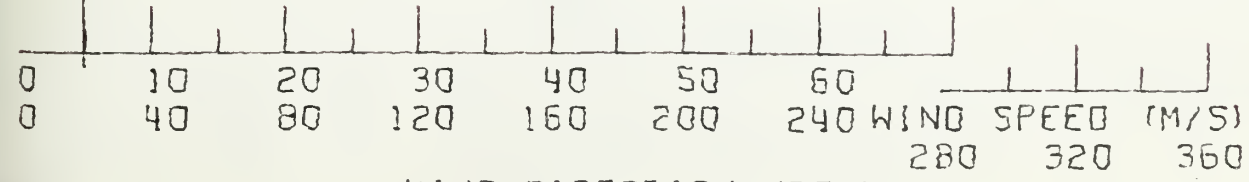


ALTITUDE IN METERS X 1000

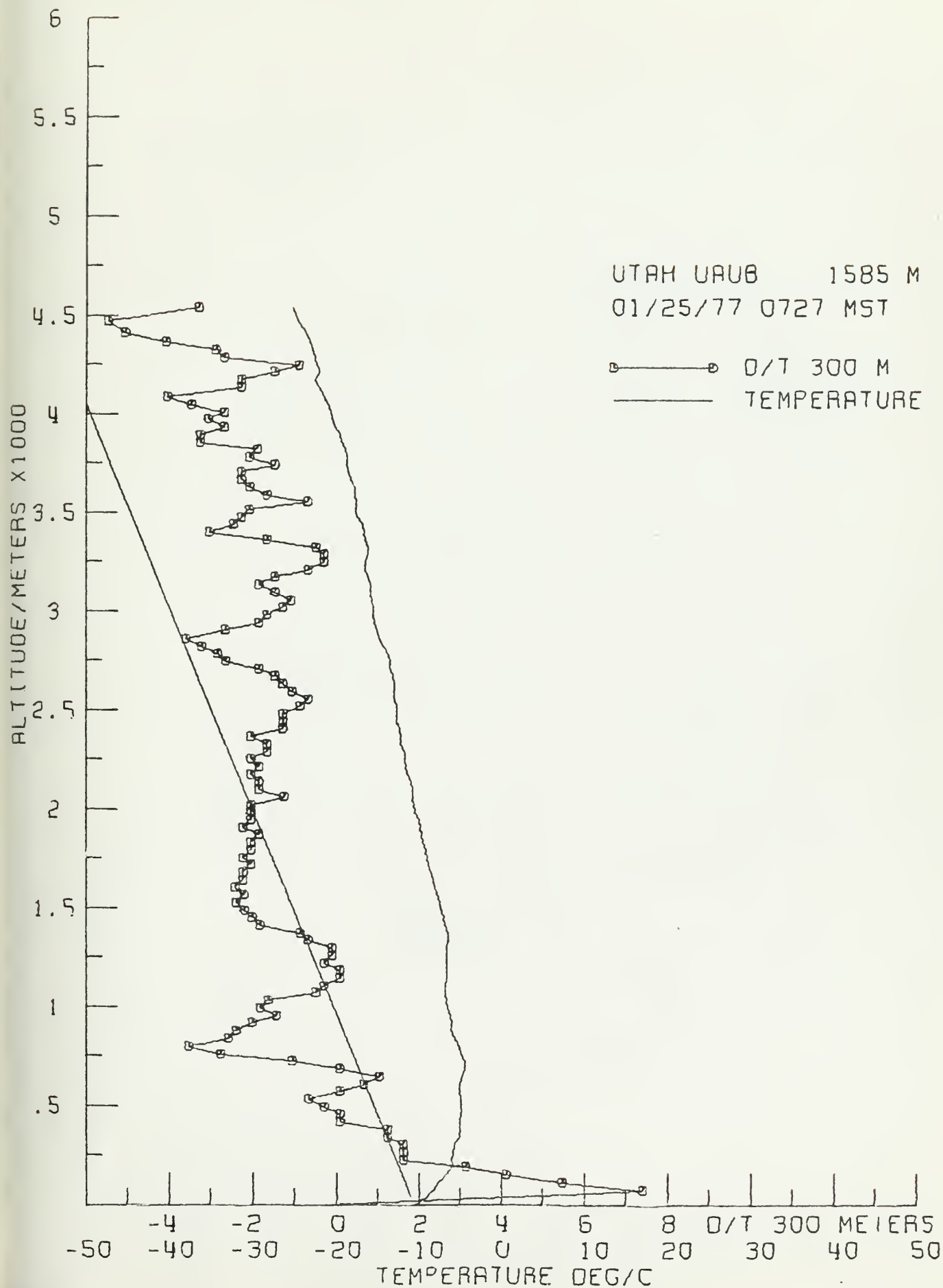


UTAH UAJB 1585 M  
01/23/77 1354 MST

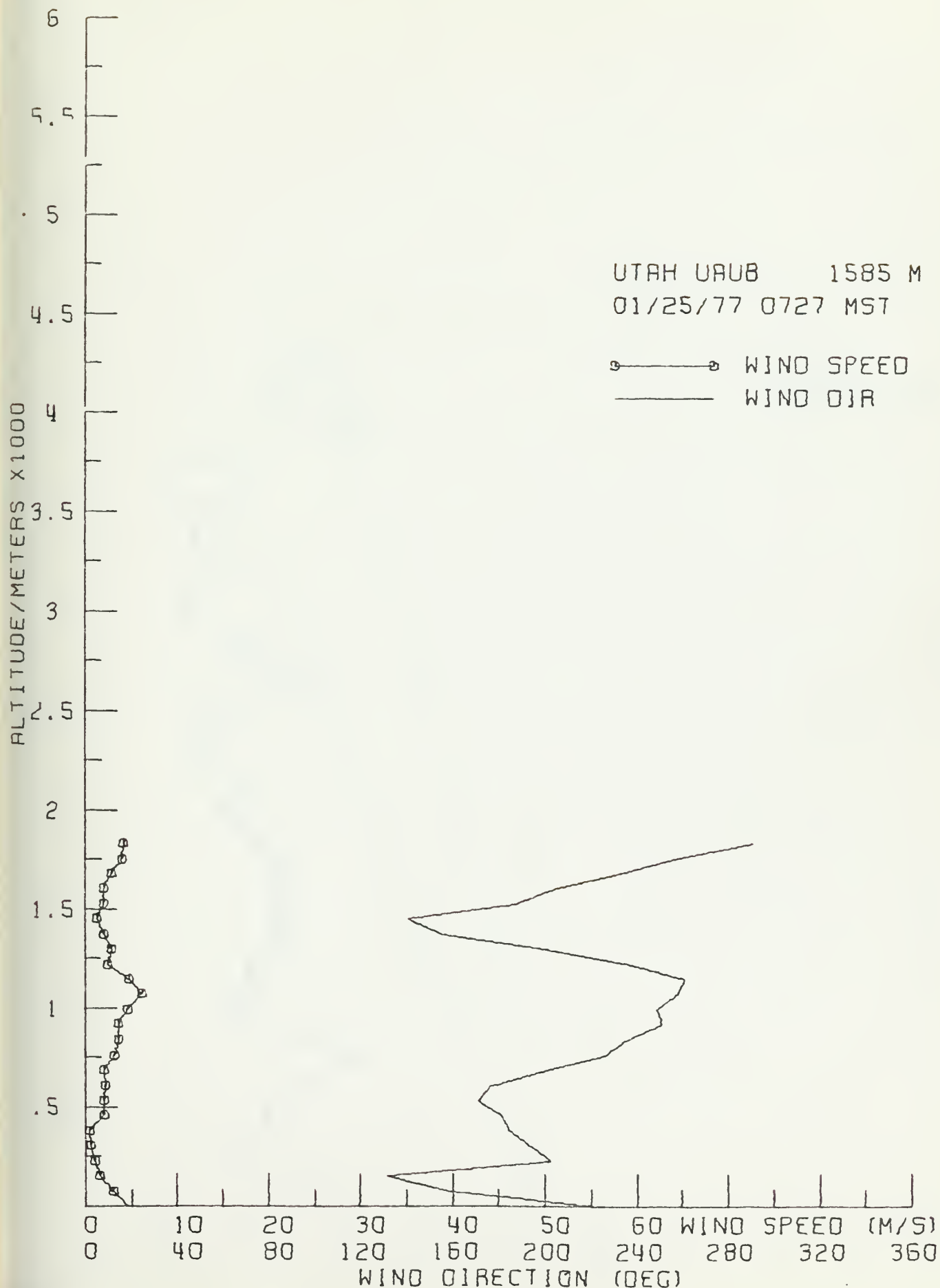
—•—•— WIND SPEED  
—— WIND DIR



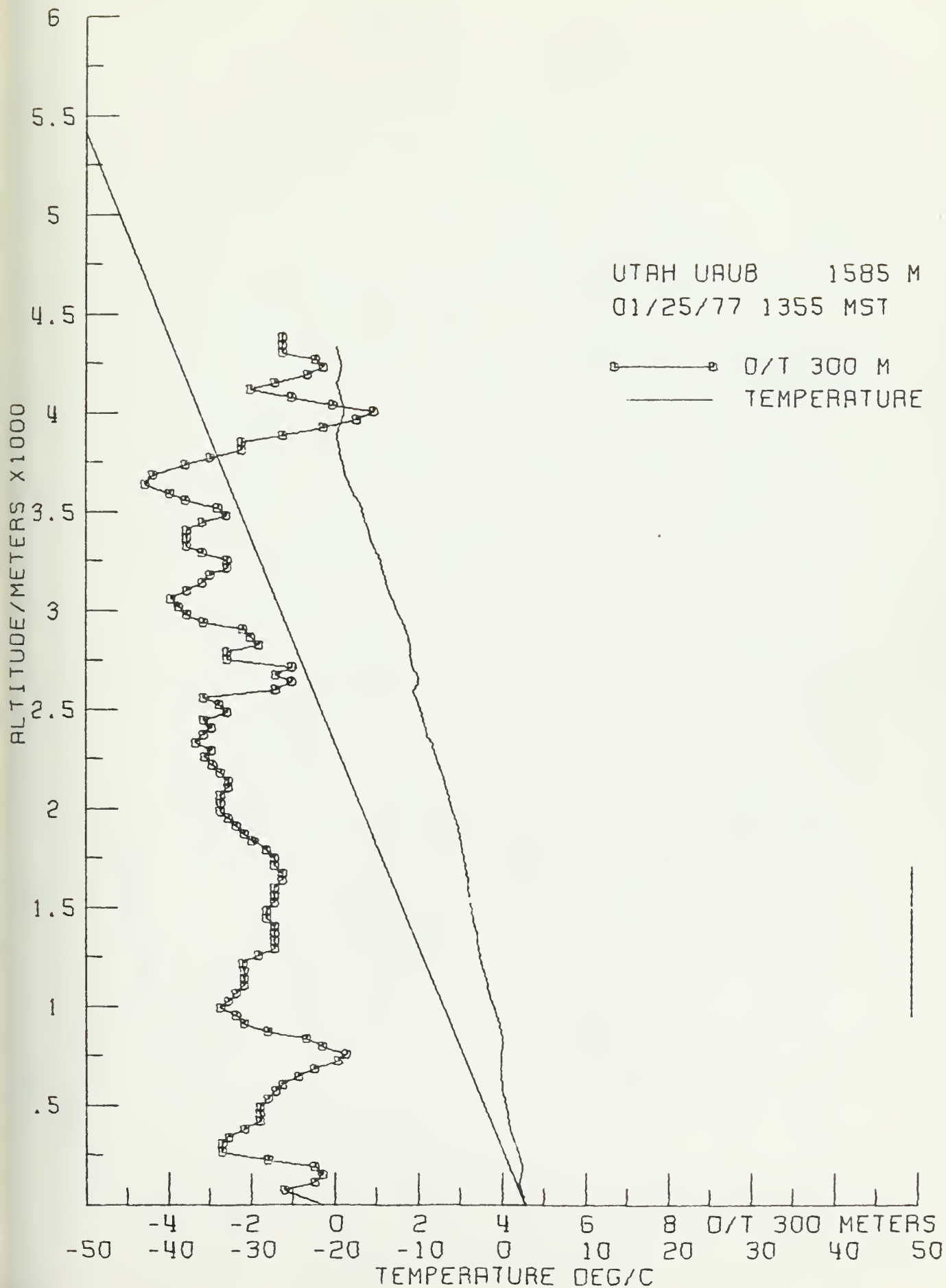




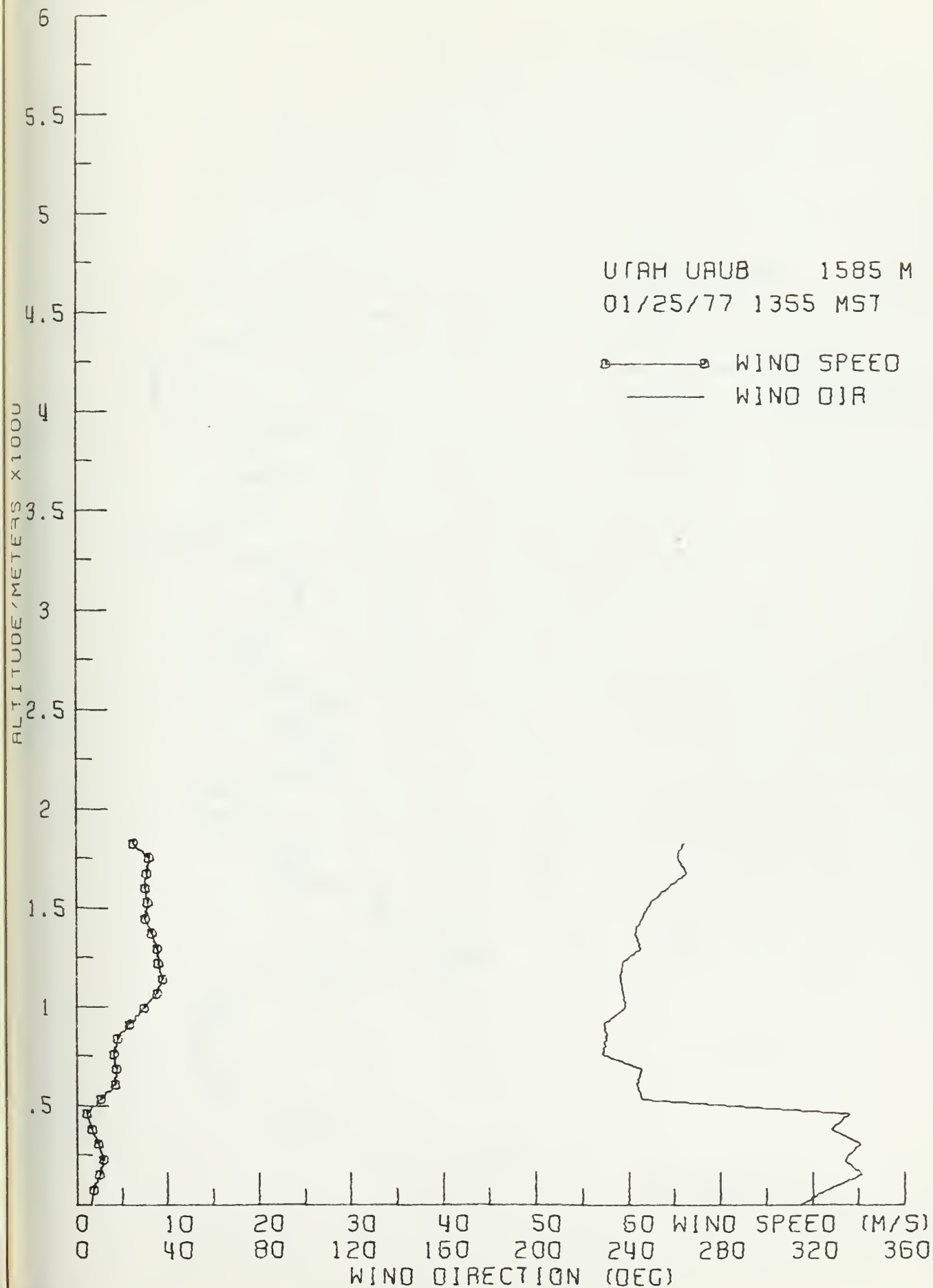




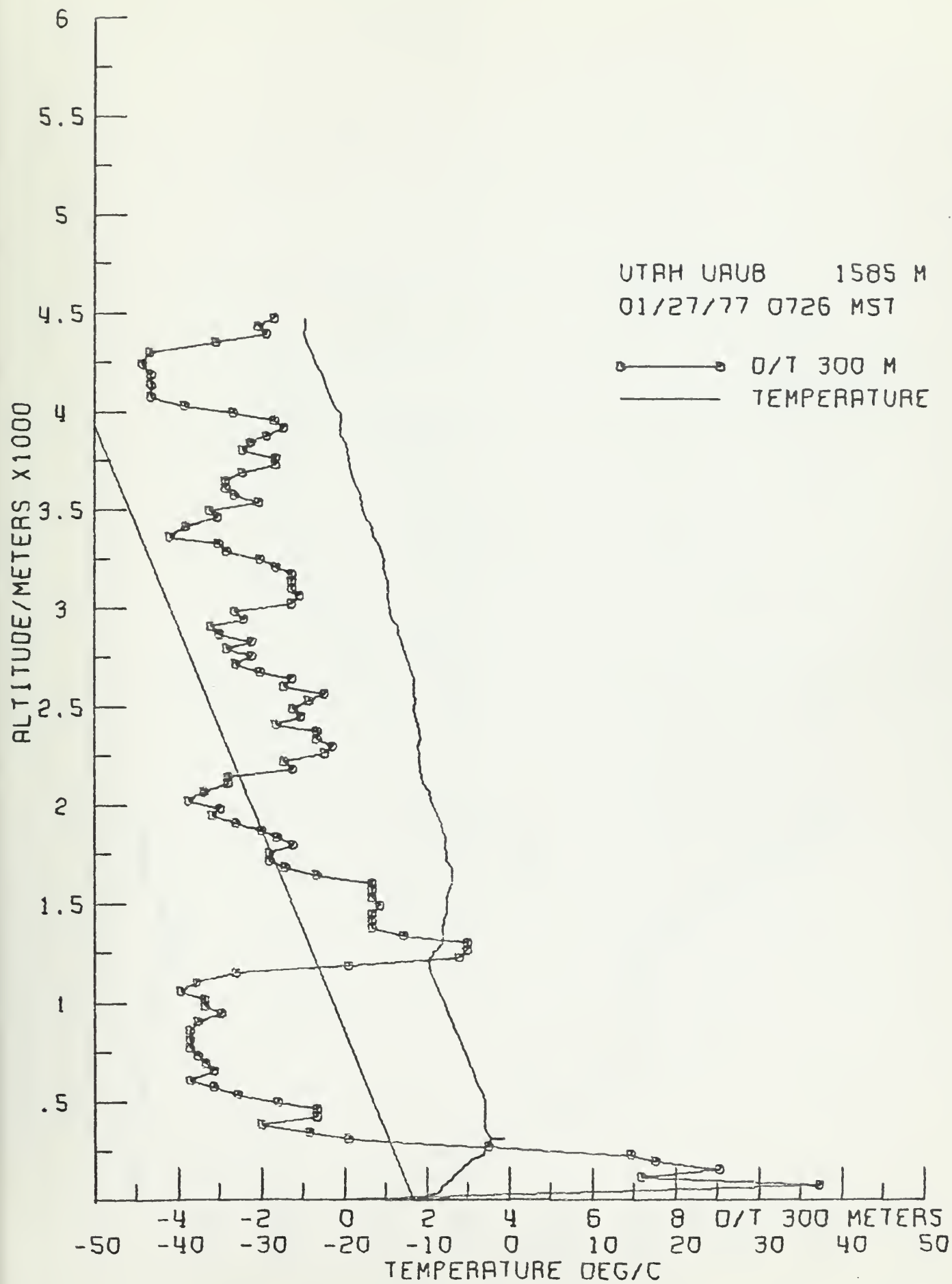




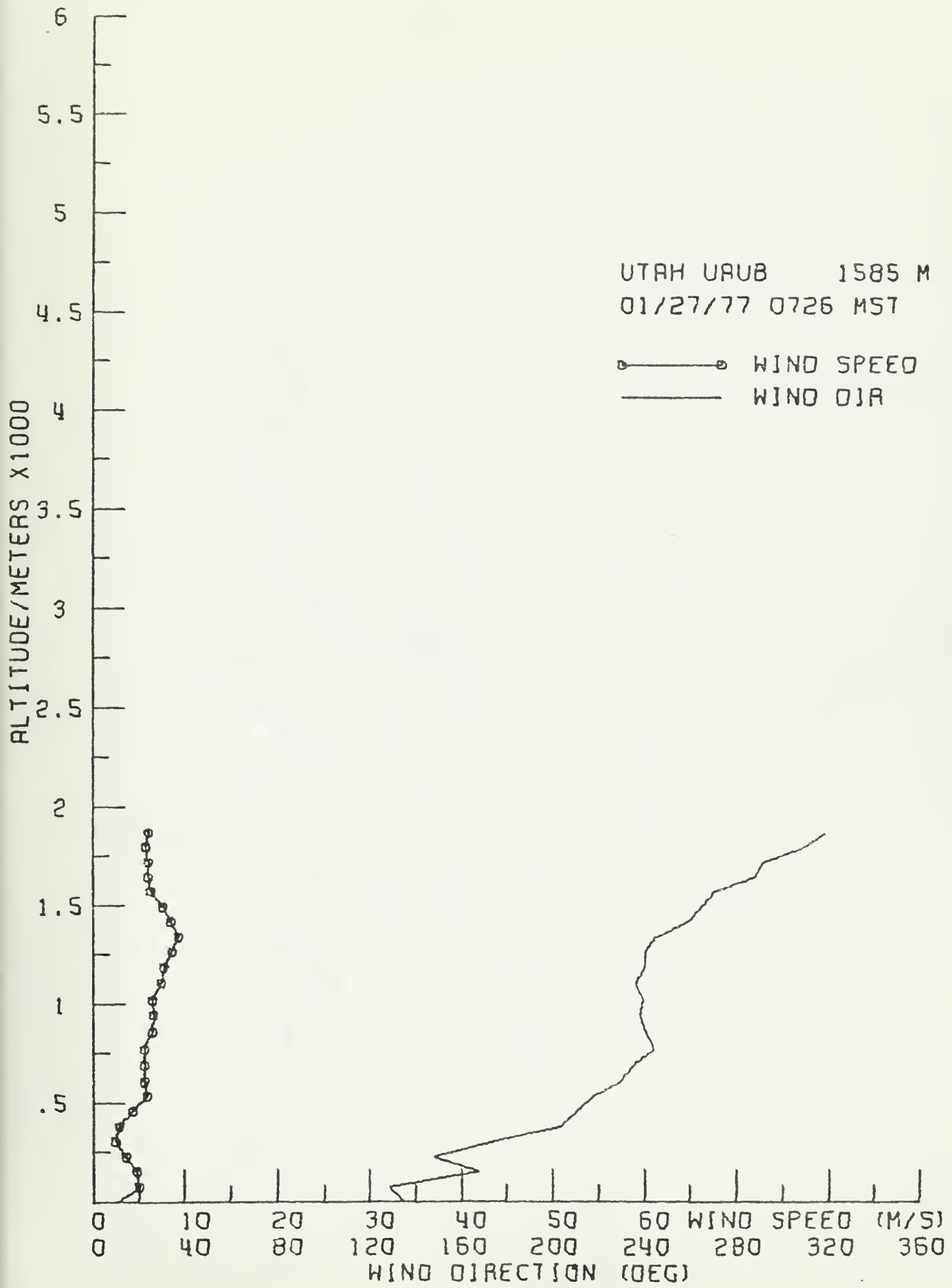




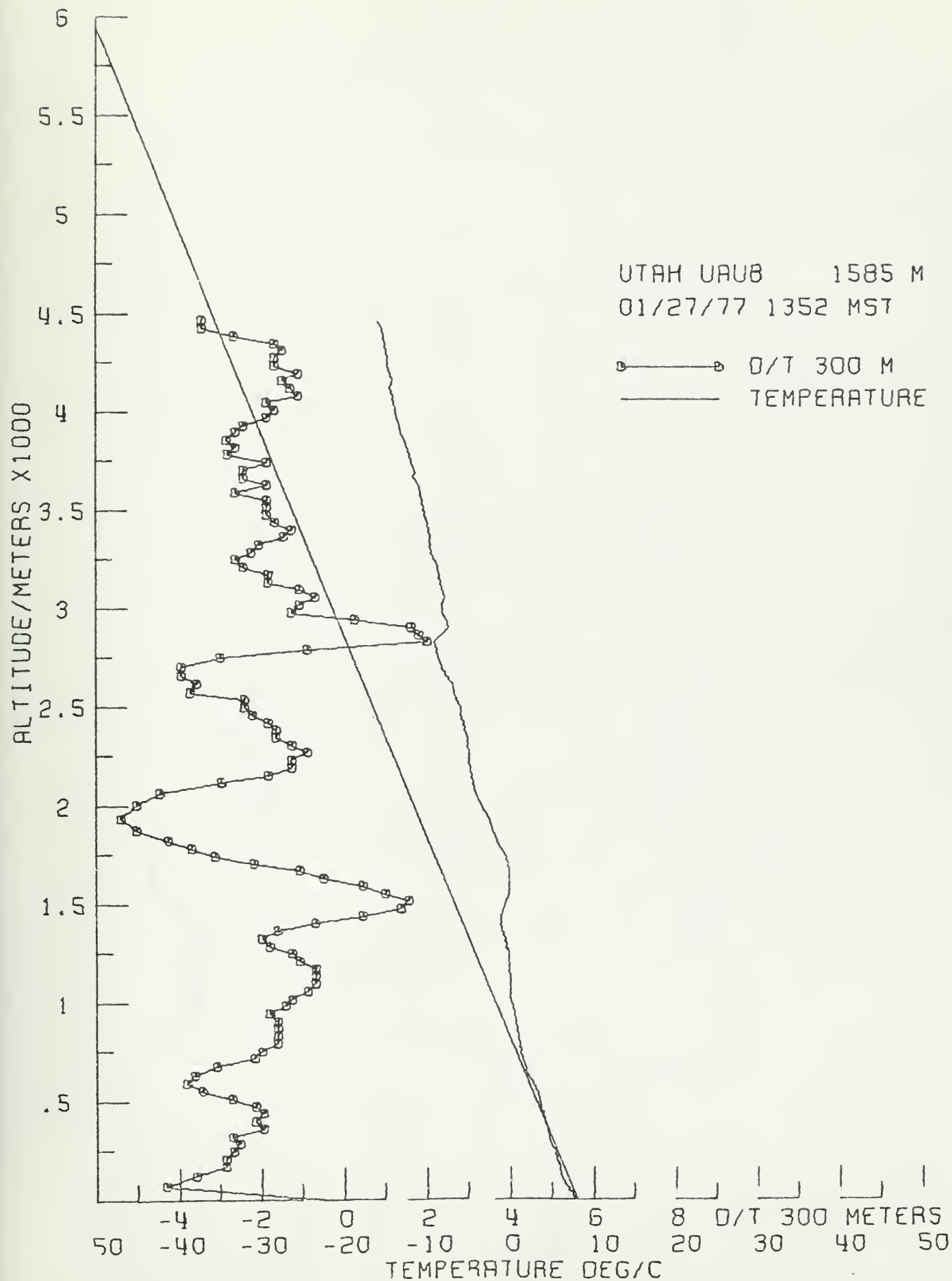




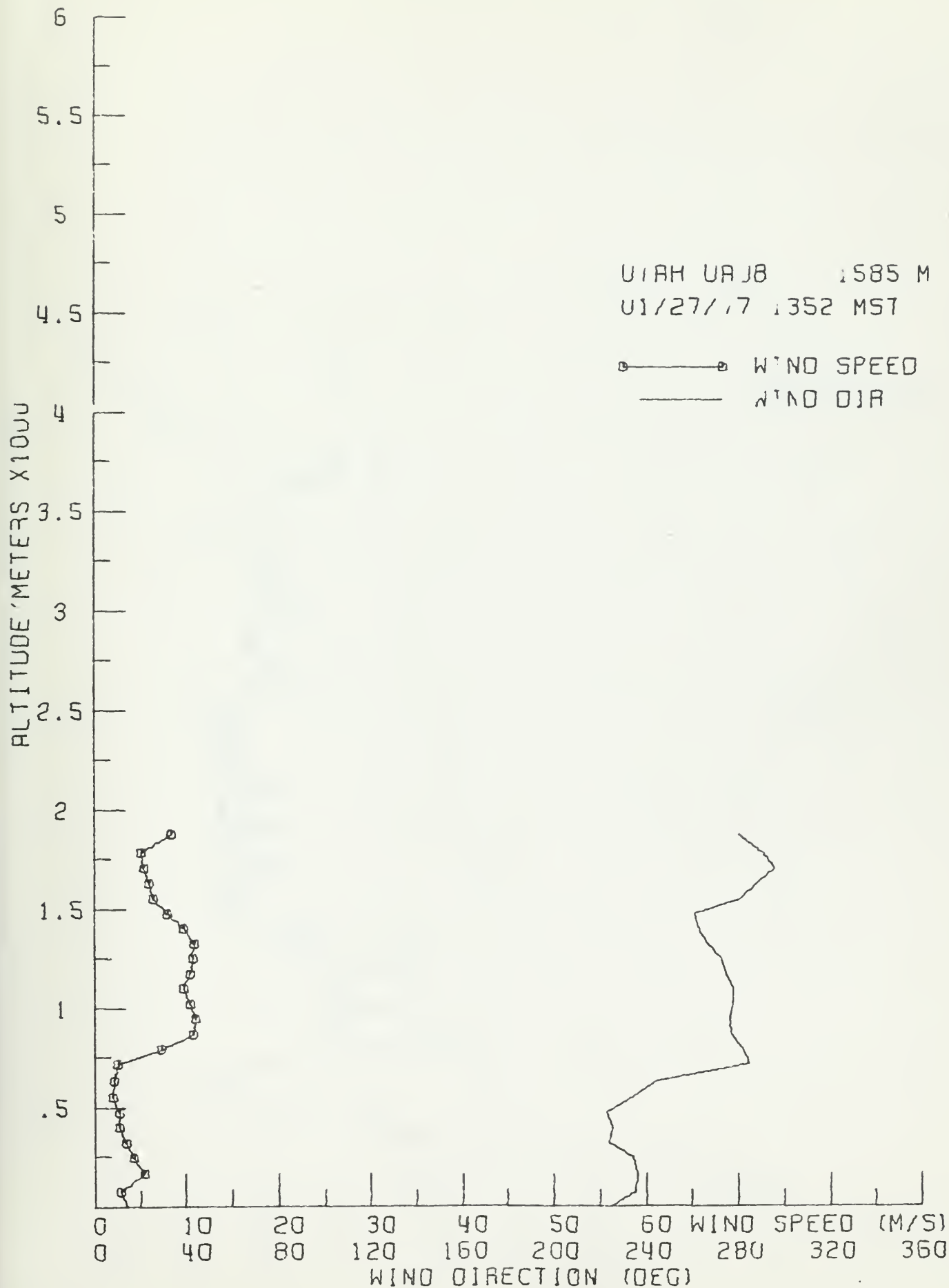




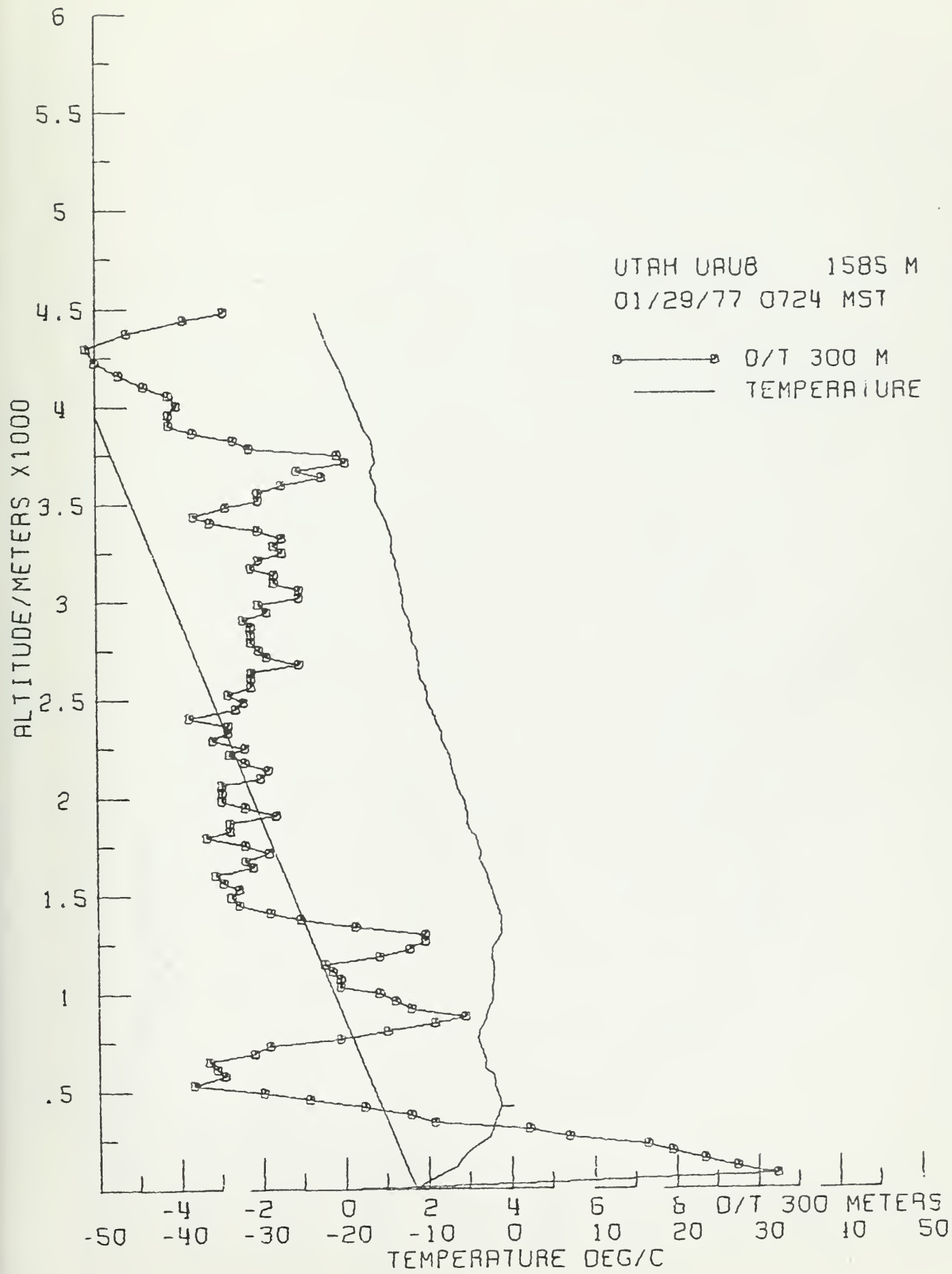




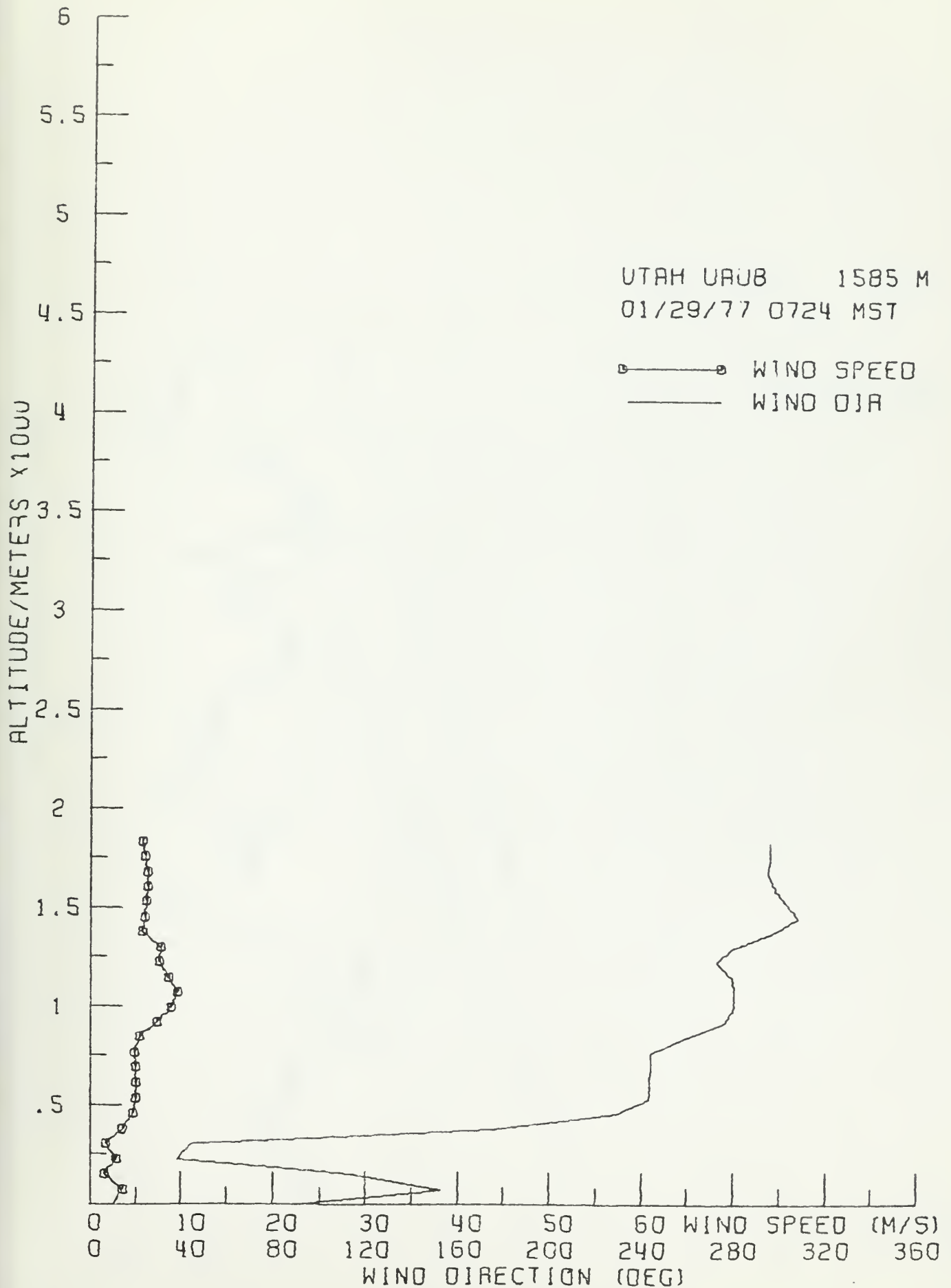




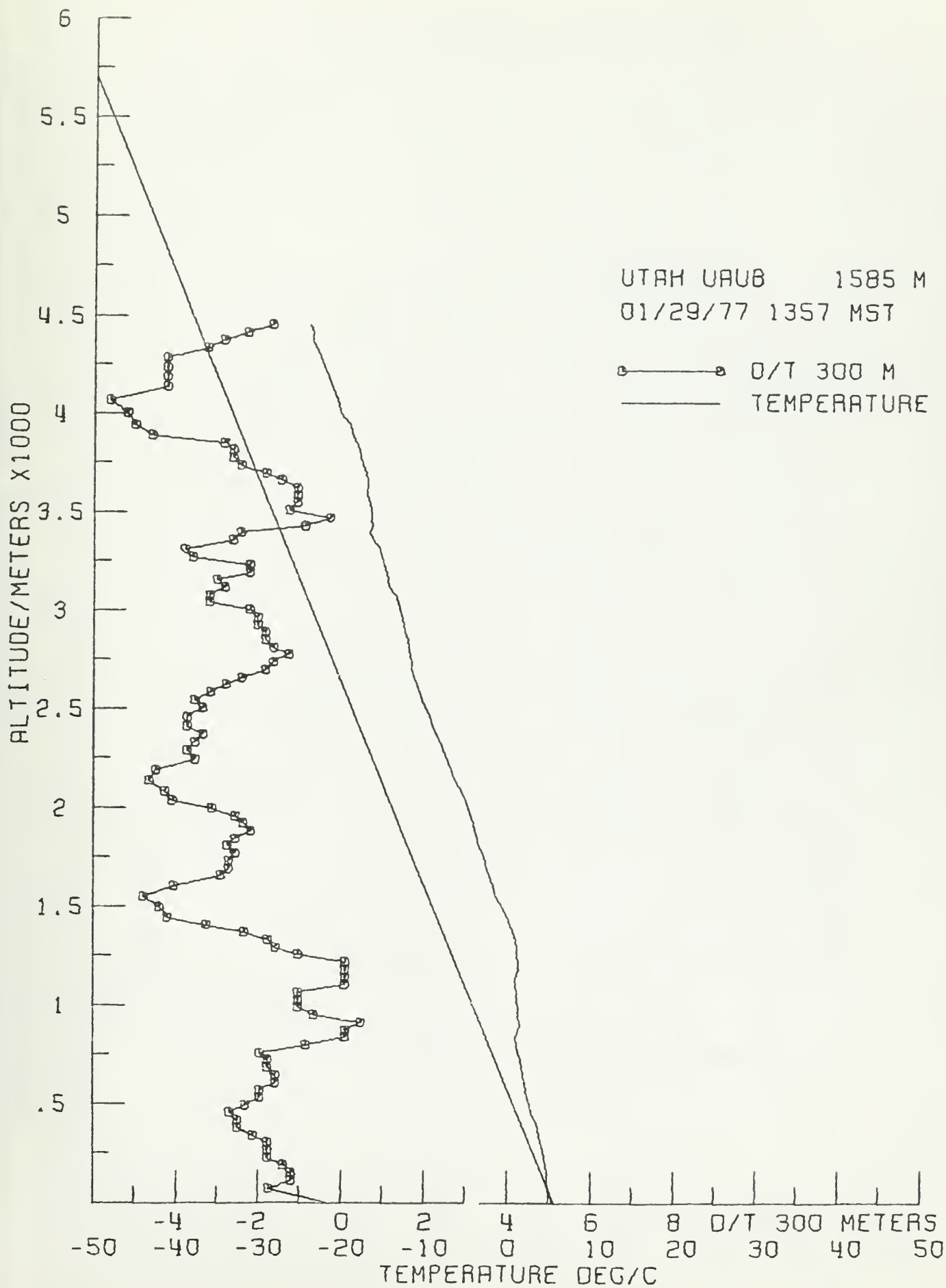




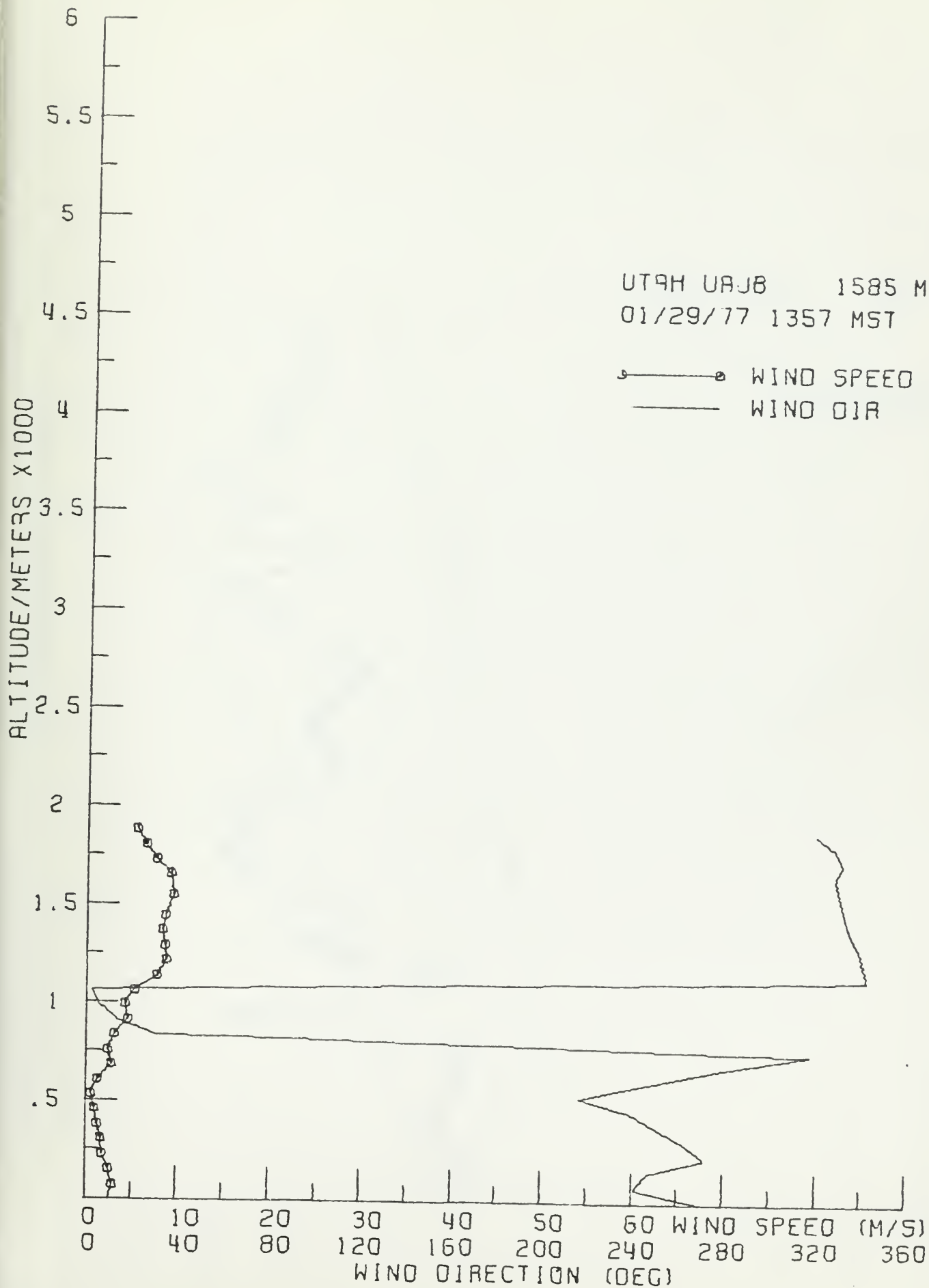




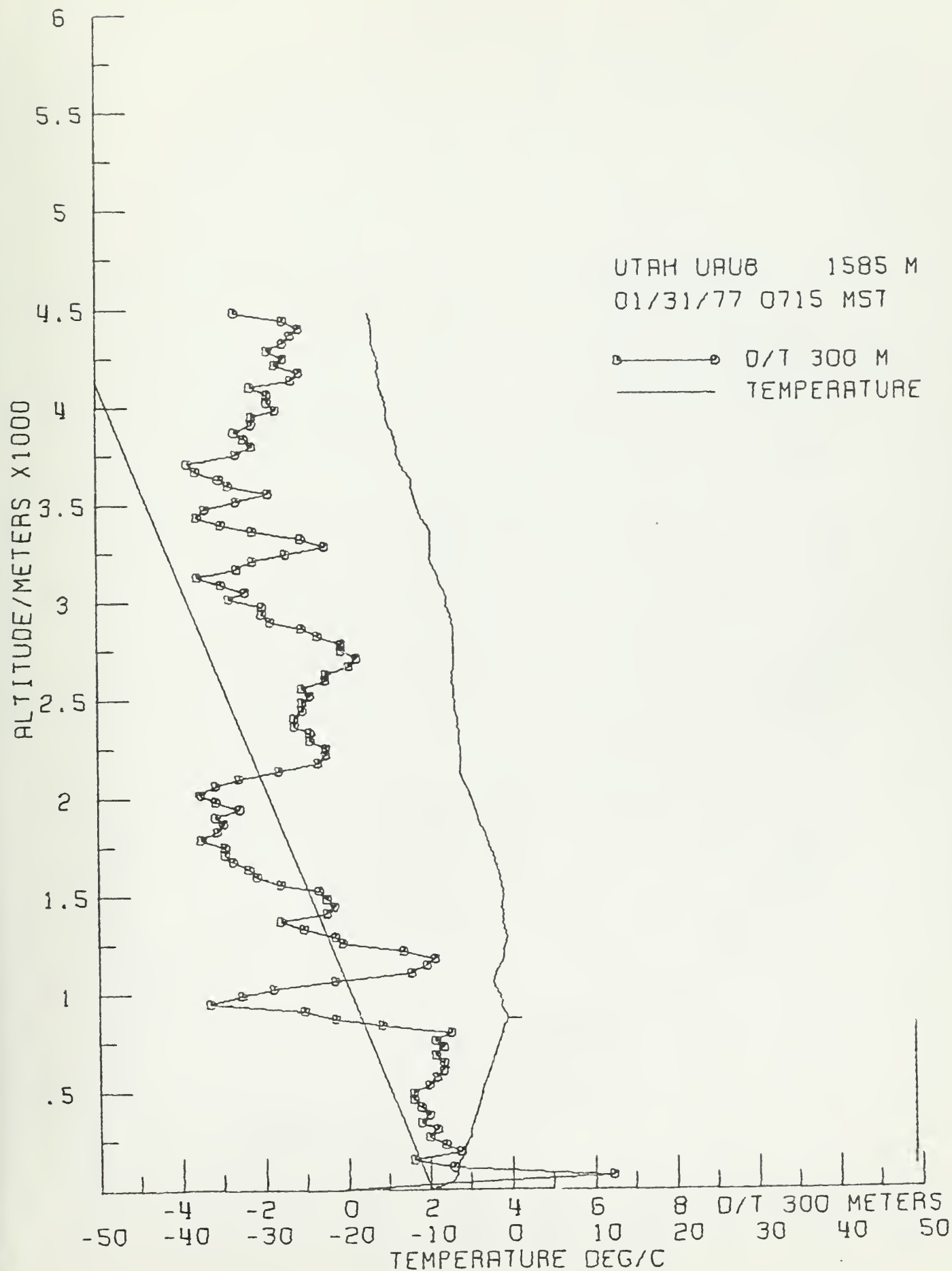




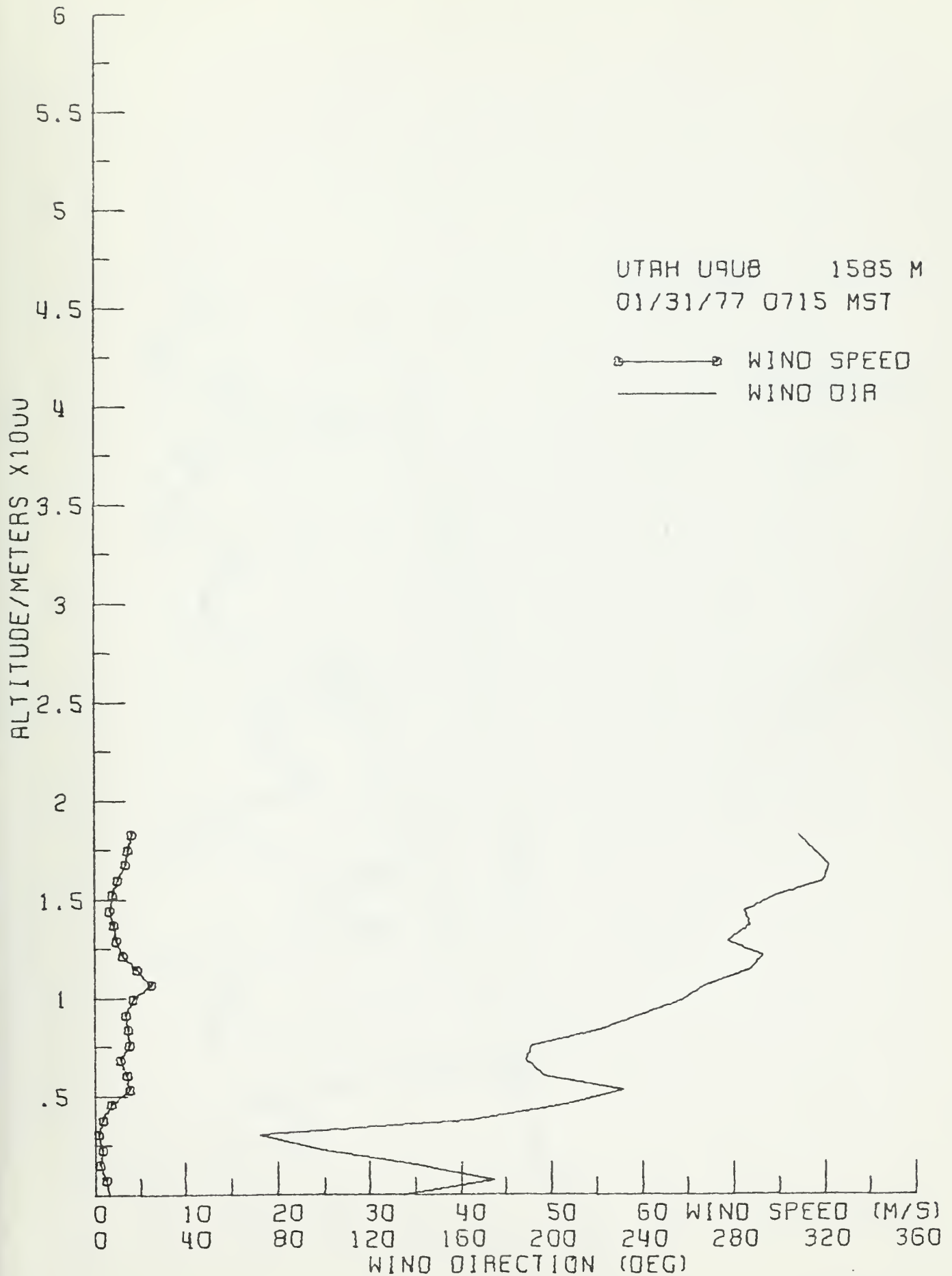




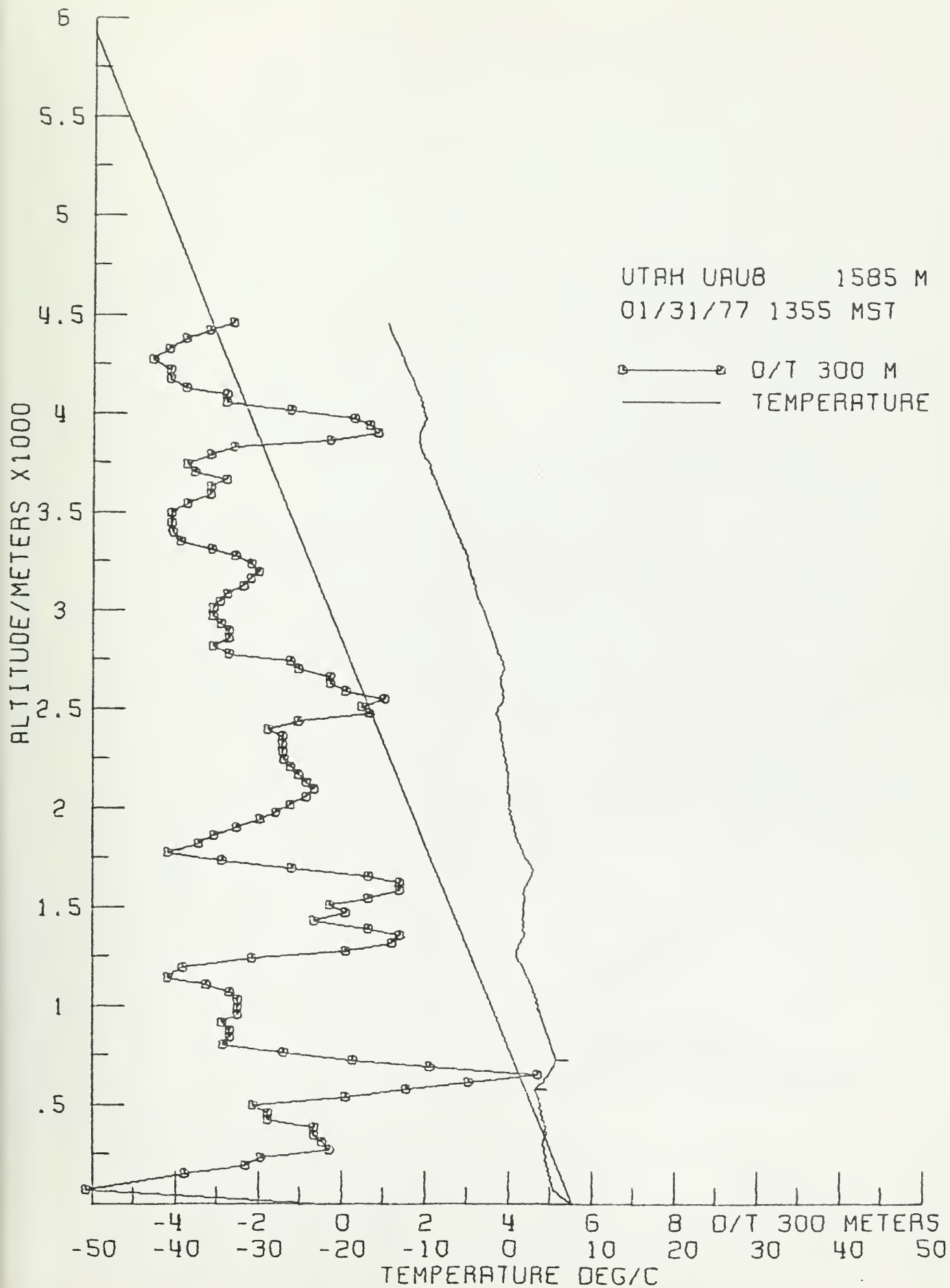


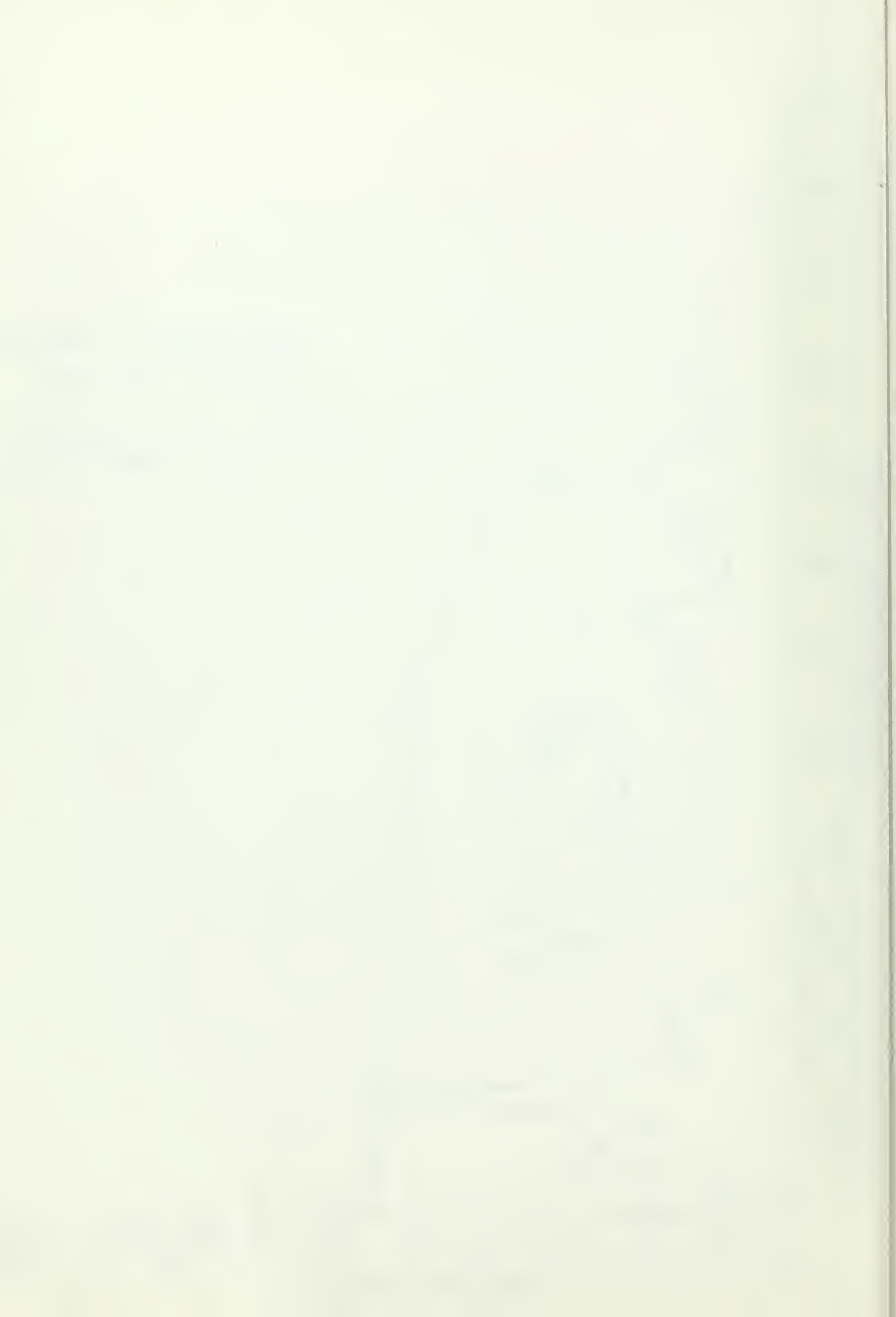


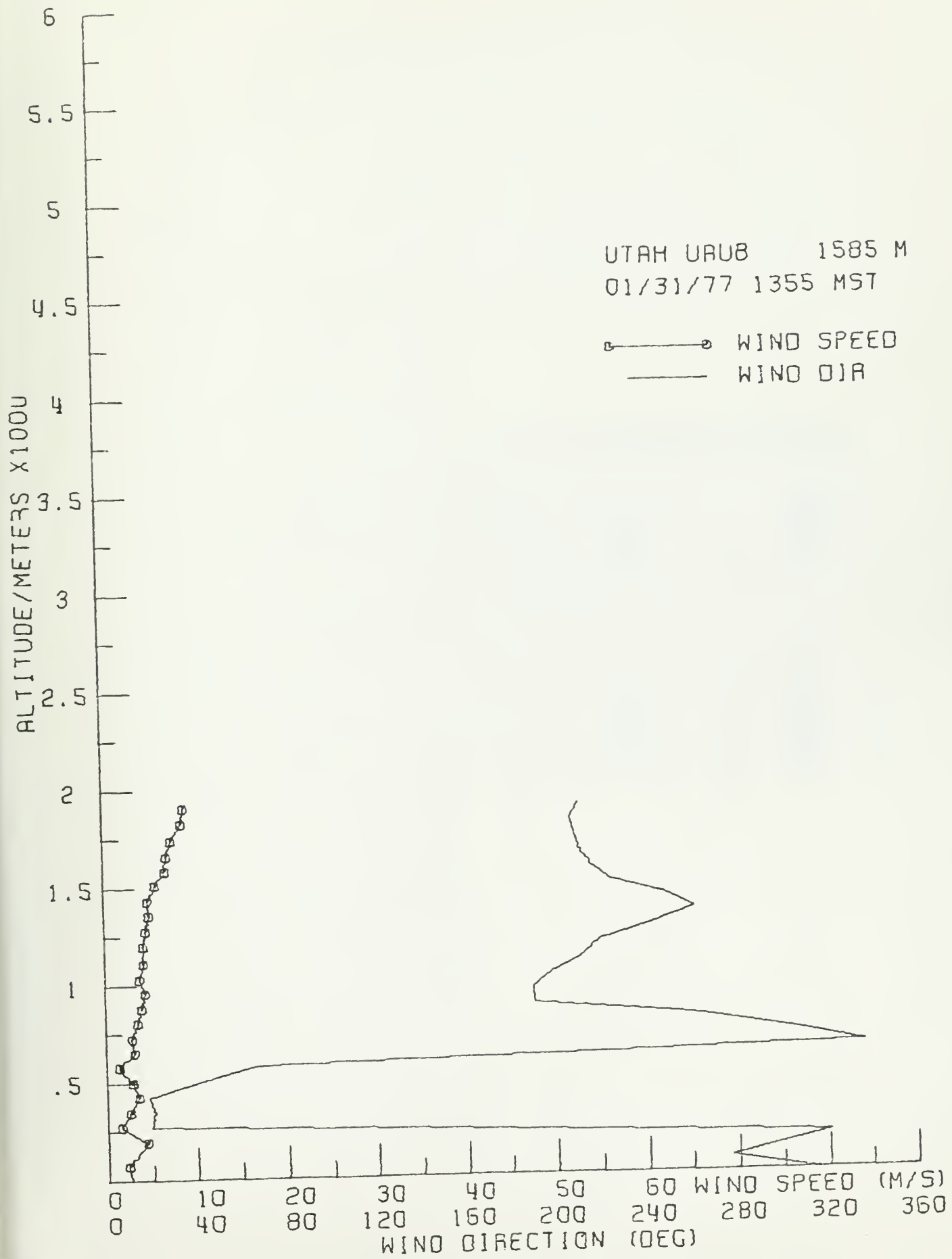














Form 1279-3  
(June 1984)

BORROWER

FORM 1279-3 (JUN 84)  
BORROWER  
FOR THE BORROWER

| DATE<br>LOANED | BORROWER |
|----------------|----------|
|                |          |
|                |          |
|                |          |
|                |          |
|                |          |

USDI - BLM

